

THE MEDICAL AND SURGICAL REPORTER.

No. 2023.

SATURDAY, DECEMBER 14, 1895.

VOL. LXXIII—No. 24

ORIGINAL ARTICLES.

UMBILICAL HERNIO-LAPAROTOMY AND HERNIO-ENTERECTOMY.

J. A. BAUGHMAN, M. D., NEOGA, ILL.

Mrs. E., housewife, aged forty, weight 235 pounds, had for four years suffered from a painful umbilical hernia of about the size of an orange. For relief from pain she sought a cure by operation. Assisted by Dr. G. T. Ragan, I cut down to the sac, through it and worked my way well into the abdomen. Before operation the hernia seemed entirely reducible,⁴ but, on opening the sac, the omental part of the protrusion was found adherent to the sac walls. This was torn loose, replaced, and the sac and redundant muscular tissues cut away. The whole umbilicus was cut out and the margins of the wound brought together with buried kangaroo tendon sutures, three in number, for the peritoneum, muscles and skins, the cobbler's stitch being used in the two deeper positions. The wound was hermetically sealed with iodoform collodium and cotton fibres; no drainage employed and in a week it was well healed with the minimum amount of inflammation.

Four and a half months after operation she returned with a knot the size of a hazel-nut, detectable but not visible, near the seat of the operation. I cut

down upon it and found an epiploimphalocele. The omentum was replaced, the very small sac cut away and sutured and sealed as before. The result, though quite recent, seems perfect.

Both operations were done under what anesthesia the endermic injection of a salt solution afforded.

During my second operation I found the tendon sutures used four and a half months previously still intact, but organized and incorporated with the living tissues. This kangaroo tendon suture is surely the best thing yet found in these operations. In operations on the bowels I have found the digestive fluids disintegrate them so quickly as to make them as unsafe as catgut.

The great interest and enthusiasm lately awakened in this section of the country by our Chicago confreres on intestinal surgery makes every case, successful or unsuccessful, by whomsoever performed, one of interest. A short report of an enterectomy in which a portion, eighteen inches of the small intestine, was excised, may not be devoid of interest in this connection.

August 8, 1893, I was called in con-

sultation with Dr. Bishop, of Aetna, Ill., to see Jacob L., farmer, aged forty-eight, weight 120 pounds, who was suffering from an incomplete right inguinal strangulated hernia of twenty-four hours duration. At the time of my arrival the patient was well under the influence of morphia, several doses of which had been administered during the previous night. All of the more conservative procedures, such as hot water, position, taxis, opium and full anesthesia, having failed to reduce the intestine, under the strictest antiseptic precautions, I cut

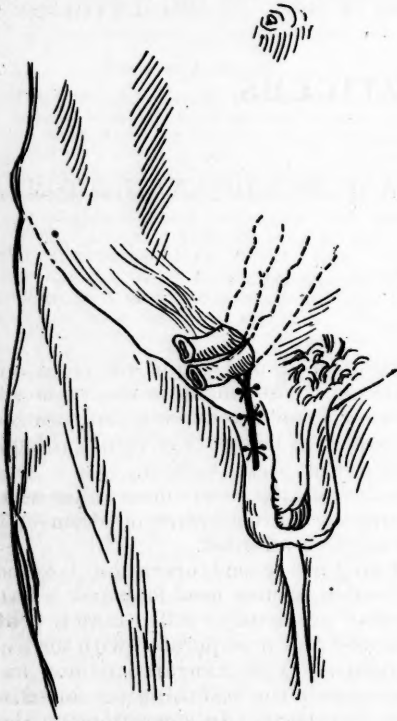


FIGURE 1.

directly down onto the seat of the trouble. As the gut and omentum rolled into view I was astonished that in twenty-four hours the integrity of the tissues could be so greatly injured. The strangulation was so complete, so absolute, that a wire would have failed to increase it. The gut, mesentery and omentum were black, hard and friable. I waited vainly for some time for evidences of a return of blood to the injured tissues. It seemed to me folly to return the damaged parts into the abdomen and I decided upon

an artificial anus as the only means of saving the patient's life.

This operation in the minds of most surgeons, as in my own, may be relegated to the past, but follow me for a moment and criticise when I am done. I first relieved the stricture, then drew out the intestine until the uninjured ends were visible, cut out the gangrenous loop, giving the picture here represented.

With a few shallow stitches the intestines were fixed (Fig. 1) to the margins of the wound and the lower, or scrotal part of the incision was closed with a few interrupted sutures. The omentum was ligated, cut off and the stump fixed in the wound. I then placed abundance of antiseptic protective material around the wound to isolate it from the profuse discharge of chyme. The exclusion of the intestinal discharges from the wound itself was a difficult and trying task. However, with an intelligent and careful nurse this was accomplished and in about six days the intestine was well glued to the margin of the wound cutting off all avenues of communication with the peritoneal cavity.

Feeding the patient during this period was accomplished per os, per rectum and per intestine. The food swallowed underwent but very imperfect digestion before it was discharged from the proximal end of the gut. The bile and pancreatic juice, owing to the proximity of the opening to the stomach, were practically all lost. Rectal injections were used to a moderate extent. Into the distal end of the gut, where it protruded from the abdomen, three times daily with a fountain syringe we injected a pint of milk and beef peptonoids, supplementing each injection with two "pancreobolin" pills, manufactured by Parke, Davis & Co. This is the only case in which I ever saw an ideal need of such a pill, as here it was introduced into the alimentary tract just a little below the stomach.

The lower end of the bowel performed its functions very well and one would have been surprised to see how completely it performed digestion, independent of the digestive fluids of the upper end of the canal. When we wished to physic the patient we simply dropped a pill into the seat of the opening.

As soon as the intestine was well agglutinated to the margin of the abdominal opening, I set about to give the intestinal contents the proper direction through the canal. This was done, barring a few modifications, by the old Dupuytren method of sloughing out the

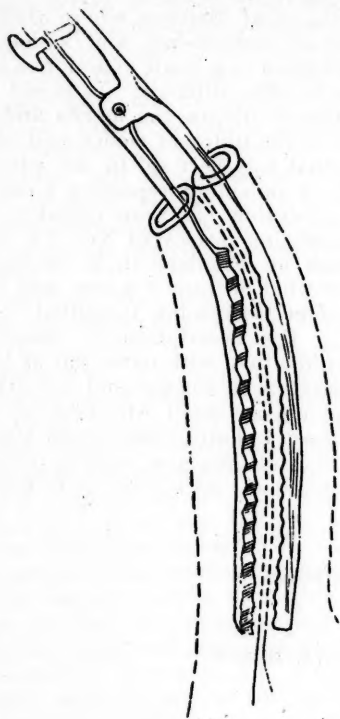


FIGURE 2.

septum or valve existing between the two ends of the intestine by the employment of a long-jawed forceps, known as an enterotome. The forceps is applied as here represented (Fig. 2), and tightened sufficiently to cause a pressure necrosis of the tissues within its grasp. The attendant inflammation serving to agglutinate with lymph the points of the intestine, which are brought into simple contact by the forceps. When the process is complete the intestinal contents have the chance to turn the angle and take their natural direction, as can be seen in Fig 3.

The forceps or enterotome which I used in this case was manufactured in one of our village smithies, and differs from the regular instrument maker's in

being lighter, having a shorter handle and being curved. The weight of this one even, was bitterly complained of by the patient. The shorter the handle the less it interferes with the dressings and bed clothing and the advantage of the curvature is at once apparent when you notice that the opening and bowel are seldom in a straight line, one with the other.

The force necessary to hold the forceps in position was surprisingly great, the peristaltic contortions of the intestine managing to extricate the organ from the grip of the instrument if not tightly set. It has been stated that an operation of this kind paralyzes the peristalsis of the bowel for the time being. That was not the fact in this case, the vermicular action being very marked throughout the whole history of the case. It is safe to say that those who are unfamiliar with intestinal surgery have but a poorly defined idea of the actual strength manifested by the muscular fibres of the small intestine.

In this case, after the direct route was reestablished, the protuberant ends of the intestine were sheared off and the fresh edges of the opening brought together with stitches. The loss of intestine at this stage of the operation amounting to about eight inches makes the total loss eighteen inches. The union of the edges of the opening was not complete, leaving at this writing an opening in size less than that of the external auditory meatus. Several unsuccessful attempts have been made to close this, and probably the only means of accomplishing it would be an end-to-end anastomosis of the intestine; but by wearing a pad of soft cotton over the opening, the leakage is scarcely a drachm of fluid a day, and the man is loathe to submit to such a procedure. He is going about and declares he feels well. He performs much farm labor at present.

That the procedures adopted in this case were about the only ones that would have saved the patient's life, I believe for this reason: At his last meal before the strangulation he ate a hearty dinner of green corn, gnawing the grains from the cob. For two or three days after the operation hundreds of large, swollen, entire grains of this corn were expelled from the upper end of the bowel and I

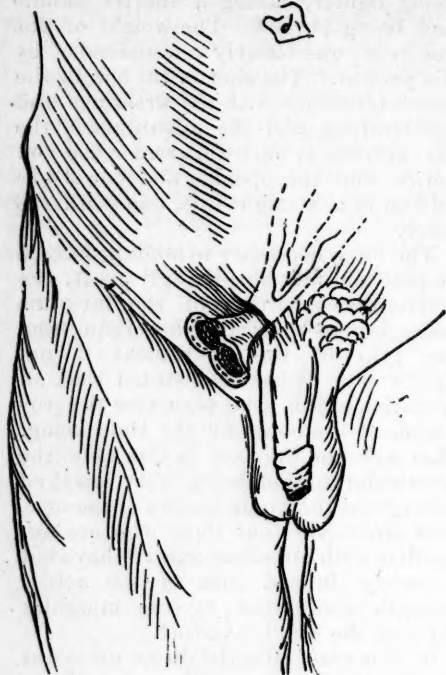


FIGURE 3.

believe that this mass of *debris* would not have passed through an end-to-end anastomosis whether plates, suture or button had afforded the means of connection. I think my patient surely would have died, had I not furnished a free exit for the lumpy intestinal contents lying above the injury.

In the rural districts where there is dearth of instruments and assistants, the selection of a mode of action in such a case is often difficult. It is not my intention to discuss the merits and demerits of the different modes and appliances that may be used in an enterectomy. I am simply reporting a case.

My attention has been called to the *British Medical Journal* of Nov. 11, 1893, in which an Englishman, R. Morrison, reports what he calls "a new and easy method of performing intestinal resection." His description of details is almost identical with mine, but as I did my operation in August and his article did not appear until November of the same year, I shall at least claim that if there is anything new, easy or original in the method I do not owe it to him.

GRAVE HEAD LESIONS.

V. GONZALEX, M.D., MONCLOVA, MEXICO.

In the Spring of 1881, while residing at Durango City, I reported in the *MEDICAL AND SURGICAL REPORTER*, a most interesting case of gun-shot wound of the head with loss of over an half ounce of brain substance, with complete recovery. Before I relate another case that I considered desperate, I wish to make some remarks about the sequelæ of said wound of the encephalon.

The case occurred in a well-off lad, fourteen years old, and after incising several times the brain protruding-mass-hernia that appeared at the orifice of entrance of the projectile—44 calibre revolver bullet—upon the right temporal, with corresponding out-let in the left parietal, the boy recovered, and, for years after, was employed in a hardware store without the least manifestation of any cerebral disturbance.

He left for Mexico City, and eleven years after the accident he was overtaken by symptoms of disturbance of cerebral circulation, and later by a most excruciating pain within the skull, with more or less comatose condition that lasted to the day of his death. This I presume was anticipated by his having been trephined under the impression of a wrong diagnosis. The pitiful condition of the poor creature was undoubtedly determined by a vicious development of the brain mass arrested by bridges formed by rigid adventitious tissue all along the tract of the wound, and which would not easily yield to the pressure exerted by the always increasing bulk of the brain, and the symptoms did not appear until further accommodation of the brain was impossible. Pressure was determined, and arrest of circulation,

anemia and passive congestion were the natural consequences; this condition being the direct mechanical cause of all the symptoms, consequently all surgical interference was unjustified.

I hope that these considerations may be of some service to surgeons who hastily arrive at conclusions, since removal of such a mass is an impossibility—if such was the operators idea. Had he asked me for information he would probably have changed his mind and not performed such a fruitless operation. Be not, young or old surgeon, no matter how high you may consider yourself from the medical standpoint, ashamed to learn from any source, for, remember you are at least responsible for your deeds!

Now to my new case.

It occurred in this city on the third of last September. A strong, healthy-looking, heavy, young man, twenty-nine years old, was wounded in the upper middle part of the head by a first-class, recently-bought, American axe. The outside wound measured about five inches, and divided all the soft tissues, fracturing with a clean cut the two parietal bones over their suture. The posterior fragment being depressed, the cranial cavity became visible through a three and one-half inch aperture, left by the divided bones, and large enough to allow me easily to introduce all of my little finger when trying to lift up the depressed bone and remove the curled hair that was carried in by the axe.

Before I arrived at the place of the accident several sutures had been applied, and all concerned were determined to hurry up things, thinking surely he could live but a few hours. The case was put under my care by the Judge Lic. Peir, himself. The man recovered complete health within a month, after the procedures to which I particularly wish to call attention:

After ordering the hair to be shaved as close as possible, I observed the most rigid asepsis, or the best that could be done here. No swelling, no fever, neither a single drop of pus ever appeared. The sutures were removed between the sixth and tenth days, respectively, and everything went on splendidly until the sixteenth day, when the patient complained of numbness and

asthenia of the thumb, index, and middle fingers of the left hand. A good dose of calomel, followed by salts, was ordered immediately, with apparent alleviation of symptoms. Next day Jaborandi Extr. pills were ordered and kept up for several days, until complete disappearance of said symptoms of pressure or irritation. At this epoch, a dreadful surgical complication appeared, which made me doubtful of the final result. Erysipelas, that dreaded guest in head injuries. This proved that Jaborandi is not a preventive of the disease, as some have claimed it to be. The first place invaded was the forehead a few inches from the wound. At the very outset I recognized the formidable enemy and prepared to fight it to the utmost, most for my patient's life or death was now again to be decided.

I specially wish to call attention to the treatment. Although not of my own conception, I wish to impress it upon the minds of my professional brethren, sure that it will prove most satisfactory.

I ordered the patient to be shaved anew, using oil instead of water—for this latter I believe is favorable to the procreation of the streptococcus—and after a *thorough* bathing with oil of turpentine to saturation, I ordered a paste made of carbonate of lead and Lanoline, —preferring this menstruum, for nothing equals it in quickly penetrating living tissue—and adding to the mixture 30 per cent. of Ichthyol. This was applied morning and evening, after saturating each time with turpentine oil. Around the wound, and an inch distant, pure Ichthyol was applied every twenty-four hours. The erysipelas did not pass over this barrier, but extended over the entire face, neck and ears, which were uncommonly swollen. Within six days the disease was under control. Internal treatment was limited to another dose of calomel and salts, and a Pilocarpine Nitrate granule every two hours. Victory was again the result.

A large blackboard has been hung in the office of the health department of St. Louis on which to write the names of the **dairymen who sell adulterated milk**. The exact per cent. of adulteration is to be written down. —*San Inspector*.

HIGHER MEDICAL EDUCATION.

M. F. DEHART, M. D., JERSEY CITY, N. J.

The article, "When may Gonorrhœal Patients Marry?" an abstract of which appeared in the *REPORTER* of October 12, contains much truth, and deals with a subject of vital importance to the health and happiness of women. It says:

"This is the most frequent of diseases. Its very frequency has caused it to be considered a proper, or rather improper and therefore more delectable, subject of humor. It is a well known fact that a vast proportion of death-dealing diseases in women are due to gonorrhœa, contracted by men before marriage and supposed to have been cured, and not one man in a thousand who swears to cherish and guard the woman of his choice can do so without imperilling her life. It may make the patient blind in twenty-four hours, and is the cause of 80 per cent. of the blindness in children." A case is cited of a healthy young girl, "as chaste as ice, as pure as snow," who marries in good faith, and soon finds herself attacked by this disease, which, it is said, "soon kills her, for, though she lives, she is worse than dead, as she is not only unsexed, but also physically destroyed."

No reference is made to those cases, unpleasantly familiar to all physicians, in which this disease is contracted after marriage, which are equally dangerous and entirely without excuse or palliation.

It says that something forcible should be done to protect innocent women, and that the remedy is education, as legislation is found to be useless, and that *men should be taught that they should not marry while they can infect*. The remainder of the paper is devoted to telling men that they can be cured, and that this can be done without any pain to themselves or even interfering with their business, but that "were it associated with frightful agony and did work great business disturbance it would be better that men suffer a while than that they cause their wife's death, or worse than death."

There is no suggestion that education should aspire to lift men above the folly of exposing themselves to such diseases, which not only injure themselves, but render them liable to inflict life-long suffering and death on those who have loved and trusted them and blindness on their children.

Is it then too much to hope that in some far-off day a race of men will be evolved who will have acquired such ascendancy over themselves that their lives will be controlled by reason; and that such a sense of justice will go hand in hand with this higher development, that they will refuse to get rid of burdens which naturally belong to them by transferring them to women, who are sufficiently handicapped in the race of life, without this cruel and unjust infliction?

Now that science is doing so much to prevent disease, and is searching so carefully for the causes which lead to untoward consequences, realizing that here is the greatest hope, can it not find something in medicine or surgery, or more probably in hygiene or ethics, which will prevent these misfortunes so ruinous to health and happiness, and which threaten to make marriage a failure?

Though science may do much to relieve the unfortunate situation by removing the offending organs and curing the disease, it cannot restore confidence or give back the charm which has fled forever. When women come to realize, as realize they must, the cause of their life-long invalidism and the reason why they must submit to such mutilation, it will be impossible for them, though they were angels, to forgive and forget their injuries or feel the old-time affection. There is a limit to what science or religion can accomplish.

Might not such instruction and warning as has been so successfully administered to women be helpful? If men were held to as rigid an accountability as women, and their sins called by their true names instead of being apologized

for and looked on as jokes, would it not help on a reform which it should be the high mission of all physicians to inaugurate? Would not such a public sentiment among men and in the medical profession help them to find a better way than through this "slough of despond," so that they might hope to escape the remorse and anguish which must fill the soul of any honorable man when he sees his innocent wife suffering the terrible consequences from his "wild oats," sown possibly in ignorance of the harvest?

These facts turn a revealing light on the causes of invalidism among women. The reasons formerly given for her deplorable physical, mental and moral deterioration as shown in her inability to fulfill her marital duties, and her reluctance to assume the responsibilities of maternity, were said to be tight lacing, lack of exercise and fresh air, imprudence during menstruation, attempts to prevent conception, and higher education.

These mild vices, of which she is, no doubt, oftentimes guilty seem insignificant as factors in her ill health, when compared with the ravages of syphilis and gonorrhœa; and her reluctance to become a mother may have a better excuse than mere vanity or frivolity. A syphilitic child, or one totally blind from gonorrhœa, might well make any sensible woman shrink from bestowing the doubtful blessing of life under such conditions, and explain her frantic and unwise attempts to escape from the perplexities of her situation.

Carlyle, in his *"Past and Present,"* says: "It seems to be taken for granted that there is some 'thing' or handful of things which could be done, some act of Parliament which could be passed whereby the social malady were fairly routed. Brothers, I am sorry I have got no Morrison's Pill, Act of Parliament or remedial measure which men can swallow and then go on in their old courses, cleared of all miseries and mischiefs. Unluckily the Heavens themselves, in their rich pharmacopœia contain none such. There will be no *thing* done that will cure you. There will be a radical, universal alteration of your regimen and way of life take place, there will be a most agonizing divorce between you and your chimeras, luxuries and falsities

take place; a most toilsome all but impossible return to Nature and her veracities and integrities take place that so the inner fountains of life may again begin like light fountains, to irradiate and purify your bloated, swollen, foul existence, drawing nigh as at present, to nameless death. Judge, if with such a diagnosis, any Morrison's Pill will be found. But the life-fountains within you once again set flowing, what immeasurable things whole sets and classes of things year after year, decade after decade and century after century will then be doable and done! Good Heavens! there will be a light in the inner heart of him and then a man, to discover what is just, what is commanded by the Most High, what must be done, were it never so impossible. The question asked of us is, 'How do we agree with God's Universe and the actual reality of things?' This universe has laws, and if we walk according to them the Law Maker will befriend us—if not, not. The thing for thee to do is, if possible, to cease to be a hollow sounding shell of hearsays, egoisms and purblind dilettantisms, and become, were it on an infinitely small scale, a faithful discerning soul. We must, if possible, resuscitate some soul, some conscience in us, exchange our dilettantisms for sincerities, our dead hearts of stone for living hearts of flesh."

Now that colleges are so earnestly striving for a higher medical education, would it not be well for them to include in their curriculum a short course from this earnest moral philosopher. Might it not help them to find a prophylactic which would avert some of the ills which all deplore; a fundamental principle which would serve as a guide out of this labyrinth, and rid us of this and many other kindred evils?

From such a far reaching reform might we not hope that prostitution, well described by historians as the blot on our civilization, would disappear as an enlightened and regenerated manhood could no longer require such an holocaust of victims?

It is said that the aspiration of one age is the code of the next, and that "the ideal life is in sober and practical truth, none other than man's normal life, as we shall one day know it."

COMMUNICATIONS.

THE CIGARETTE HABIT.*

J. C. MULHALL, M. D., St. Louis.

As a member of this and the Climatological Association, and as one who has smoked cigarettes for twenty-five years, I feel that I may speak with a certain amount of authority on this subject. "You, a throat doctor, and smoke cigarettes!" is a phrase that has finally wearied my ears; and, bubbling with mild wrath, "I rise to explain."

The pleasure and the penalty of this vice have never been rationally described, to my knowledge, other than by myself. This I did in a paper published in the *St. Louis Courier of Medicine* some eight years ago, and so little notice was given it that what I now say will be practically new.

A word as to the tobacco habit in general. Mankind pursues various methods in using it: by chewing it, by dipping, by cigar or pipe, by snuffing, and by cigarettes. There is a reason why each one pursues a particular plan. Early associations have much to do with the selection of the plan; but, apart from this, each method has its own particular pleasure. The man who both chews and smokes derives a different kind of satisfaction from each method, and he would derive a still different kind did he take snuff. Cigarette smokers may be divided into those who inhale the smoke and those who do not. The latter class is a very small one and the pleasure is the same, in a milder degree, as that of the cigar and pipe smoker, wherein the smoke chamber is the mouth. But all real devotees of the cigarette inhale. That is, with a quick inspiratory act, the smoke is drawn through the larynx into the trachea and, so far as I have been able by different experiments to learn, into the first division of the bronchial tubes; not, as the public believes, into the lungs proper. These inspira-

tions are nearly always superficial, and the fact alone that there is a tidal and residual air would teach that the smoke does not reach beyond the bronchial tubes. Inhalation explains the pleasure of cigarette smoking. If the cigarette smoker did not feel the smoke in his larynx and windpipe, his pleasure would be gone. Every old cigarette inhaler will tell you this fact: that if he perchance smokes a brand of cigarette very much milder than that to which he has been accustomed, he will at once reject it, simply for the reason that larynx and trachea have been accustomed to a certain degree of irritation. The larynx and trachea have, so to speak, acquired a habit which rejects any unusual departure. For the same reason the inhaler rejects a brand of cigarettes much stronger than that to which he is accustomed, nor will he inhale the smoke of a cigar—vastly more irritating than that of any cigarette. The inhaler may change his cigarette for one more pleasing to his sense of flavor, provided always, however, that it satisfies his accustomed degree of laryngeal and tracheal irritation.

The pleasure in cigarette smoking, therefore, as compared with other tobacco habits, may be said to be a pleasurable irritation of the laryngeal and tracheal sensory branches of the pneumogastric nerve.

Another question frequently hurled at me in all these years has been, "What satisfaction can you get out of those weak little things?" The question means nicotine satisfaction. I once more rise to explain.

One absorbs nicotine in accordance with the amount of absorbent surface in contact with the column of smoke. In ordinary smoking the mouth alone is the smoke chamber; but when one inhales, one must add to the mouth the mucous

*Read before the American Laryngological Association, 1886.

membrane of the larynx, windpipe, and larger bronchi. There is, hence, roughly speaking, three times as much surface for the absorption of nicotine; and consequently, though a cigar contains vastly more nicotine, three-fourths of it is wasted, so far as the question of nicotine intoxication is concerned, as compared with the cigarette. Moreover, the cigarette smoker consumes two or three while the cigar smoker consumes one. The puny cigarette is, therefore, not so weak as it appears, and with this explanation begins to appear worthy of the newspaper term "deadly." Again, the cigar smoker, as compared with the cigarette smoker, is an infrequent consumer. We know that, with most drugs, if we divide an ordinary dose into ten equal parts and give one part every ten minutes until the ten parts are taken, we get a more powerful effect than if the whole were given at one dose. So it is with cigarettes. The dose of nicotine is smaller, but the doses are much more frequently repeated. I can smoke one large, strong cigar in the ordinary manner without evidence of nicotine intoxication, but I cannot smoke three cigarettes inhaled, in succession, without nausea or vertigo or a rapid pulse.

The evil effects of cigarette smoking may be divided into the local and constitutional. As compared with other tobacco habits, if the cigarette were composed of other ingredients than tobacco and paper, we should, as clinicians, be prepared to look for different signs and symptoms. So far as the constitutional effects are concerned, I wish to state, as one who has carefully watched this question for fifteen years, that they are absolutely the same as those of tobacco used in any other form. The evil symptoms are always those of nicotine poisoning—not those of any other drug. The only chemist of high standing who, to my knowledge, has analyzed cigarettes is Dr. Ledaux, who last winter presented to the Section in Jurisprudence of the New York Academy of Medicine a report of the analysis of several popular brands of cigarettes. The dealers from whom he obtained the samples expressed their hope to him that he might find all kinds of narcotics in them. They explained that handling them was a nuisance to them; that all the profit accrued to the

cigarette trust. He found absolutely no evidence of any other drug but nicotine in the tobacco, and in the paper a harmless quantity of cellulose.

The W. C. T. U. has endeavored to crush the cigarette evil by asserting that opium, *cannabis indica*, and other narcotics were present in cigarettes. Vice cannot be cured by misrepresentation. The only narcotic present is nicotine, and this is an evil or not according to a great many different circumstances. That chief circumstance when, without exception, it is always productive of great harm, is youth. Every medical man will admit, theoretically, that this should be a fact, and the few who, like myself, have made practical observations will tell you that they never saw a child (I mean by this term those who have not reached puberty) who used tobacco habitually whose health was not in some manner badly impaired. What else would one expect the tender, growing nervous organism to do but wilt under the steady daily influence of a drug like nicotine? In adolescence—and practically this may be said to be from puberty until eighteen in females and twenty-one in males—the evil is not so great, but is still a great one; for, though the nervous crisis of puberty has been passed, the nervous system is still rapidly developing. The nerves are more resistant than in childhood, but, on the other hand, greater demands are correspondingly made upon them, either by the higher phases of education in one class or by the actual daily struggle for existence in the other. That the use of tobacco is a serious handicap in adolescence is proved by the investigations of others than myself. At several of our great universities it has been found by exact and scientific investigation that the percentage of winners in intellectual and athletic contests is considerably higher in the total abstainers from tobacco. Sammy, the best known newsboy of St. Louis, who by his wit and energy at the age of fourteen has accumulated quite a bank account, at my instigation made a series of unbiased observations concerning the newsboys of St. Louis. He found, other things being equal, that the selling capacity of the boy who used no tobacco was much greater than that of the boy who used tobacco either by chewing or by smoking.

It being admitted that the use of tobacco is a great evil in the young, it follows as a self-evident proposition that any method which encourages its use must be more reprehensible than a method which discourages its use, and the cigarette, above all other methods, presents this encouragement to the use of tobacco. In its mildness is concealed its very capacity for doing harm, for the reason that it teaches the use of tobacco. Every one knows the picture by Brown of a newsboy clinging to a lamp-post, limp, pallid and vomiting entitled, "His First Cigar." Had it been his first cigarette the picture would not have been true to Nature, for, unfortunately for our growing youth, the first cigarette does not induce this deathly nausea. Were this only the case there would be but one cigarette smoker in youth where there are now a hundred. The boy at first uses only the mouth as a smoke chamber, and as a cigarette is so mild he absorbs but a minute quantity of nicotine, insufficient for nausea. He gradually becomes able to consume more cigarettes, and quickly acquires nicotine tolerance. He is not allowed to pursue this method long. Invariably some other boy teaches him to inhale. At first it causes violent cough, and many would never repeat the attempt, but the taunts of the other boy are heard, and with the bravado of boyhood he perseveres. The larynx and windpipe soon tolerate the smoke, then demand it, and the boy is a full-fledged cigarette fiend.

The mildness of the cigarette explains also its fast-spreading use among young women, especially the leisure-class young ladies. As a rule they do not inhale, for at the first attempt the violent cough ensuing quenches ambition in this direction, and, unlike the youth or the boy, she is seldom encouraged to persevere. The fear of a tobacco tainted breath also curbs her habit. In young ladies who smoke cigarettes very moderately and who do not inhale I have never seen evidence of nicotine poisoning. Their immoderate use, even without inhalation, may, of course, afford sufficient nicotine to disturb the health. Apart from this, however, I join hands with the ladies of the W. C. T. U., who, in New England, have established anti-cigarette leagues among young ladies re-

formed of the habit, because of the pernicious example these young ladies may set to the youth and childhood which surround them.

Personally I may add that when I am appealed to on the same ground I freely admit the force of the argument. I, however, do not pose as a reformer or advocate, only as an expert.

The great evil of tobacco is its constitutional effect on the nervous system. The much lesser evil is local—namely, on the upper respiratory organs. My experience, like that of Morell Mackenzie, is that, provided there is no other factor, the use of tobacco provokes little or no disturbance to these organs. That it may aggravate a throat or nose trouble occasioned by other causes I will admit, or that by its constitutional depressing effect it may aggravate such trouble I will also admit; but, excluding all other causes and looking at tobacco purely in respect of its local effect, I must deny that it ever causes, as ordinarily used, throat disease worthy of the name. There are a few exceptions as there are to all laws in medicine. There are idiosyncrasies in regard to the use of tobacco, both with reference to the throat and the nervous system. They are rare. Tobacco, in its ordinary use, at most produces a slight hyperæmia or insignificant catarrh in the healthy throat. As used in cigarettes—that is, by inhalation—the smoke comes in contact with the laryngeal, tracheal and bronchial mucous membrane, and here produces in many the same trivial hyperæmia and secretion. This latter is pearly and is ejected with a single gentle cough. I am unaware that I have this slight cough unless reminded by others. I have occasionally heard whistling râles in the bronchi of those who inhale very deeply and are immoderate smokers. Hyperæmia, not inflammation acute or chronic, is the sole disturbance. The effect in the larynx of the ordinary healthy man seems almost nil. Mario, the great tenor, inhaled cigarette smoke between the acts. I experience no vocal difficulty in delivering lectures. Maxwell, the murderer of Preller, was confined in the St. Louis jail for two years, during which time he inhaled an average of forty cigarettes a day. I secured the larynx and trachea of Maxwell, but

could discover no evidence of morbid change other than a fracture of the hyoid bone, caused by the hangman's rope.

Twenty years ago in this country this habit existed, but was unusual, probably because each consumer was compelled to make his own cigarettes. But since the American manufacturer, with his advertising genius, has scattered them over this country, ready made and very cheap, the habit has grown enormously. Nervous diseases and insanity are rapidly increasing in the American people we are assured by our own neurologists. Our nation was already noted

as furnishing proportionately more neurasthenics than any other. If to such an inheritance American youth then adds the nerve-destroying nicotine habit which the cigarette so materially assists in spreading, there is grave reason to hope that the cry of reform may be echoed throughout our glorious country. There is no such instructor of the public as the press, and I trust that our newspapers will publish broadcast such information as this and kindred essays may give them on what is fast becoming a national vice in American youth—the cigarette habit.

THE TREATMENT OF THE NOSE AND THROAT DURING THE COURSE OF MEASLES AND SCARLET FEVER.

The objects to be accomplished are to thoroughly cleanse the mucous membrane, to render the secretions alkaline, to render inert the bacteria which may be present, and finally to lubricate the mucous membrane and protect it from too rapid evaporation. In cleansing the nares, use a simple one-bulb atomizer, which is course and free, in order not to blow a lot of air into the nostrils, or it may be poured from a teaspoon, a dropper, or a Dessar's nasal douche cup. Cleansing solution: Seiler's antiseptic tablet, one tablet; cocaine, four grains, and water two ounces. Oily protective: liquid albolene or hydrastol, a preparation of hydrastis with oil of cinnamon and other aromatics, one ounce; menthol, thymol or eucalyptol, one grain; and spirits of chloroform, one-half drachm. One-half per cent. cocaine may be added by first dissolving it in oleic acid (one grain of alkalioid to the minim of the acid). For acute zymotic coryza of children: eucalyptol, six minims; cocaine, five grains; oleic acid, five minims; chloroform, one drachm, and hydrastol, two ounces; or thymol, two grains; terebene, five grains, and hydrastol, one ounce. For catarrhal laryngitis: chloroform, one-half drachm; menthol,

five grains; camphor, ten grains, and hydrastol, enough to make one ounce:—spray down into the larynx several times daily. If a powder is desired as a protective, use the compound stearate of zinc combined with boric acid, ten per cent.; menthol, two per cent.; cocaine, four per cent., etc. If there is a croupous exudate, use peroxide of hydrogen, preceded by a spray of one per cent. solution of cocaine, and followed with an oily protective. For epistaxis, the application of peroxide of hydrogen is excellent. The inhalation of warm, medicated steam is valuable and one-half to one drachm of any of the following mixtures may be added every two or three hours to the boiling water: tar, one ounce; and alcohol, four drachms. Or; carbolic acid and cresoline, of each to drachms; and eucalyptol and balsam Peru, of each four drachms; Or: gum camphor, one drachm; menthol, two drachms; oil pine needles, two drachms; eucalyptol, two drachms; and oil of tar, enough to make two ounces. Or: eucalyptol and thymol, of each one drachm; carbolic acid and benzoic acid, of each thirty grains; and terebene, enough to make two ounces—Am. Med. Surg. Bull.

THE MEDICAL AND SURGICAL REPORTER

ISSUED EVERY SATURDAY

THE BUTLER PUBLISHING COMPANY, Publishers P. O. Box 843

104 Girard Building, Philadelphia, Pa.

HAROLD H. KYNETT, A.M., M.D.,

Editor

Entered at the Philadelphia Post-Office as second-class matter.

TERMS:—Three Dollars a year in advance. Sent four months on trial for \$1.00.

REMITTANCES should be made payable to the Publisher only, and should be made by Money Order or Registered Letter.

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PHILADELPHIA, SATURDAY, DECEMBER 14, 1895.

CORRESPONDENCE.

TO THE EDITOR MEDICAL AND SURGICAL REPORTER:—

A very grave wrong is being perpetrated against the American public by a reprinter of one of the English competitors of the Funk & Wagnalls Standard Dictionary—a wrong that cannot be excused by the exigencies of commercial rivalry. As is well known, in all unabridged dictionaries it is necessary to give the definitions of certain indelicate words. Eighteen of these words (selected out of a vocabulary of over 300,000 terms in the Standard) have been collated and printed with their definitions by the reprinter of this English dictionary, and circulars containing them are being distributed among teachers, school trustees, and parents all through this country, stirring up a filthy agitation that will end, unless frowned down by the public press and other leaders of public opinion, in setting people of prurient minds and children everywhere to ransacking dictionaries for this class of words. One of these publications contains such outrageously unjust comments as the following:

"About two years ago the publishing house of Funk & Wagnalls brought into the world a monstrosity entitled the Standard Dictionary of the English Language."

"So far as relates to its collection of obscene, filthy, blasphemous, slang, and profane words, it has no counterpart in dictionaries of the English Language."

It is but fair to the press and scholars of England to say that the English critics have in no way seconded this unfair assault, but are unanimous in the most unqualified indorsement of the American work, the Standard Dictionary, expressing in many ways the same opinion as that of the St. James's Budget [weekly edition of the St. James's Gazette], London, which said:

"To say that it is perfect in form and scope is not extravagance of praise, and to say that it is the most valuable Dictionary of the English Language is but to repeat the obvious. The Standard Dictionary should be the pride of literary America as it is the admiration of literary England."

The utter insincerity of this attack on the Standard is seen in the fact that nearly every one of these eighteen words is in the English work which is published by this reprinter, and it contains other words so grossly indelicate and withal so rarely used as to have been excluded from the Standard and from nearly all the other dictionaries. Fifteen out of the eighteen words (and others of the same class) are, and

properly so, in the Century Dictionary, and they are to be found, with scarcely an exception, in every other reputable unabridged dictionary, and this class of words is invariably recorded in the leading dictionaries of all languages.

Since this gross attack has been made, we have submitted to Charles A. Dana and to a number of well-known educators the question whether we committed an error in admitting into the Standard this class of words. The answer has been without an exception, "You did not."

The fact is, extraordinary care was used by the editors of the Standard "to protect the language." Of the more than 500,000 words collected by the hundreds of readers employed to search all books of merit from Chaucer's time to the present, over 200,000 were excluded *wholly from the vocabulary*; hence there was no need and no effort to pad the vocabulary. The rules of exclusion and inclusion were most carefully made and rigidly enforced. A most preplexing problem from beginning to end was how to reduce the vocabulary, not how to enlarge it. Compression was carried by many devices to the extreme degree. The editors who passed upon the admission of words numbered over one hundred of the best known writers and scholars in America and England. To accuse such men of "filthiness" is to do a wrong of the gravest degree. It is the business of a dictionary to record words, not to create, nor to destroy them; to answer inquirers concerning the spelling, pronunciation, and meaning of all words that are used to any considerable extent, not to obliterate those it does not fancy. Whether a word has a right to exist or not, the final arbiter is the people, not the dictionary. The dictionary, as says Trench, should be the inventory of the language, and, as says the Encyclopedia Britannica under the term **DICTIONARY**, it "should include all of the words of the language A complete and Standard Dictionary should make no choice. Words obsolete and newly coined, barbarous, vulgar, and affected, temporary, provincial, and local, belonging to peculiar classes, professions, pursuits, and trades, should all find their place—the only question being as to the evidence of their existence—not indeed,

all received with equal honor and regard, but with their characteristics and defects duly noted and pointed out."

Improper or indelicate words, when it was found necessary to admit them into the Standard, were blacklisted as *low, vulgar, slang*, and printed in small type. It did not seem to the editors that an unabridged dictionary could go further without justly incurring blame.

To collect from such a work words of the class referred to and publish them is as great an outrage as to collect from the Bible the many indelicate words and passages to be found there, or those from Shakespeare (some of these eighteen words are found both in the Bible and in Shakespeare), and then to print and scatter abroad the collection, saying: "See what a foul book is the Bible; see what an obscene and blasphemous work is Shakespeare." The publication and distribution of these circulars is a gross assault upon public decency. An agent who attempts to exhibit such a printed circular surely should not be listened to for a moment; he is a public enemy, and should be turned from every decent door.

The old story will be remembered of a woman accosting Samuel Johnson, shortly after his dictionary had been published, with, "Dr. Johnson, I am so sorry that you put in your dictionary the naughty words." "Madam," retorted the Doctor, "I am sorry that you have been looking for them."

Respectfully.

I. K. FUNK.

New York.

Ink spots are always the most difficult to efface. Take up as much of the ink as possible with a spoon and blotting paper, and then use milk or clear water until it disappears, being careful not to extend the area of damage done by rubbing the ink into the adjacent material.

Benzin will remove paint from delicate fabrics; if it fails, turpentine must be used, and the mark which it leaves be effaced by alcohol. If in the process of removing stains the color departs from the material, it can generally be restored by dabbing with chloroform.

ABSTRACTS.

FOOD AND DRINK FOR THE SICK.*

J. HOBART EGBERT, M. D.

It is patent to careful observers that a sufficient knowledge is frequently wanting on the part of nurses and attendants, while physicians themselves are seldom well acquainted with the best methods of preparing food for the sick—even when they appreciate the kind of variety of aliment indicated or allowable in a given case. The receipts herein presented have been gathered from various sources—some, we believe, are now published for the first time—but all have been found worthy of favor after due trial in both hospital and private practice.

Variety in diet is frequently required in sickness as well as demanded in health; still, as is well known, the character and amount of food necessary for the best interests of the sick vary widely according to the nature of the disorder and the stage reached in the progress of the malady. Thus, in fevers and during the earlier periods of acute diseases—most of which involve derangement of the digestive apparatus—a diet of the blandest and most digestible sort is all-important.

Light, nutritious food, in a liquid form, may be administered to such patients quite frequently, but in small amounts. In such cases, solid food is ordinarily irritating to the stomach and loathsome to the patient, while small quantities of fluid food taken at short intervals will afford a sufficient amount of nutriment, which the irritable stomach, when thus approached, will accept and quietly appropriate to the nourishment of the body. In acute inflammatory rheumatism, meat in any form is to be avoided, while fruit, green vegetables, gruels, and vegetable soups are likely to prove beneficial. Hysterical subjects need a generous meat diet and should avoid spirituous and fermented liquors. Consump-

tives require a liberal diet and should partake freely of substances rich in fat, as meats and preparations of cream or milk. In diabetes the diet should be highly nourishing and varied, including all meats—excepting liver—and vegetables not rich in starch or sugar; while all starchy and saccharine foods, malt liquors, and wines are to be avoided. In diseases of the heart a dry, nourishing diet is most conducive to the comfort of the invalid, as liquids are absorbed slowly; the table should be generous, but stimulants and strong coffee should be excluded, as they readily excite the heart's action.

Before presenting the various receipts and formulas available for preparing special varieties of food and drink for the sick and infirm, we would call attention to the fact that so-called "dieting" can easily be carried to extremes, and that due nourishment may thus be withheld from bodies and organs in which vitality is running low. Referring to this subject, the late Professor Gross, of Philadelphia—to whose utterances the weight of authority has always been accorded—once said: "The diet of the sick room has slain its thousands and tens of thousands. Broths and slops and jellies and custards and ptisans are usually as disgusting as they are pernicious. Men worn out by disease and injury must have nutritious and concentrated food. The ordinary preparations for the sick are, in general, not only not nutritious, but insipid and flatulent. Animal soups are among the most efficient supporters of the exhausted system, and every medical man should know how to give directions for their preparation. The life of a man is his food. Solid articles are, of course, withheld in acute diseases in their earlier stages, but when the patient begins to convalesce, they are frequently borne with impunity and greatly pro-

**Dietetic and Hygienic Gazette.*

mote recovery. All animal soups should be made of *lean* meat, and their nutritious properties, as well as their flavor, may be much increased by the addition of some vegetable substances, as rice or barley."

The following rules, suggested by Dr. Napheys, should always be observed in preparing, cooking, and serving food for the sick. All the utensils employed should be scrupulously clean. Never make a large quantity of one thing at a time. Serve everything in as tempting and elegant form as possible. Put only a small quantity of an article on a dish at a time. Keep milk and other delicacies on ice in warm weather. Never leave food about a sick room. Prevent as far as possible the odor of food in process of preparation from reaching the sick room. Never offer beef tea or broth with the smallest particle of fat or grease on it, nor milk that is sour, nor an egg that is bad, nor vegetables that are underdone.

Milk is justly held in high esteem as an article of diet for the sick. As a rule, it is agreeable to the palate and easy of digestion; still, in order to insure its highest usefulness, due management is necessary. A simple fresh milk diet is not only monotonous, but frequently occasions trouble. Biliousness may ensue, and gastric and intestinal irritation supervene; while the purity and innocuousness of fresh cow's milk may many times be justly questioned. Only milk recently drawn from the udder should be used in the sick room, and, on the score of safety, this should be boiled as soon as received and set in a cool place. As a nourishing beverage this boiled milk may be served either cold or luke-warm, and, for weak stomachs, may be greatly improved by the addition—when administered—of an equal quantity of carbonated water.

Milk Gruel.—Scald one half pint of milk, add six raisins, and allow to stand five minutes. Take a tablespoonful of cornstarch and thoroughly mix with two tablespoonfuls of cold milk. Having placed the scalded milk in a farina boiler over the fire, add the cold milk and cornstarch, stirring the whole backward and forward until it begins to thicken; then add one ounce of sugar and let it cook one minute. Strain and place in molds in a cool place.

Milk Gruel with Oatmeal.—Fine oatmeal two tablespoonfuls; milk, one pint. Stir the oatmeal smoothly into the milk. Then stir it quickly into a pint of *boiling water* and boil a few minutes until thickened. Add a pinch of salt and sweeten with sugar.

Milk Jelly.—As a variation in milk diet the following is recommended. Heat one quart of milk with one pound of sugar, and when the sugar is dissolved continue the heat at a boiling temperature for about ten minutes. Then cool well and add, *slowly* stirring, a solution of one ounce of gelatin in a cupful of water. Next add the juice of three or four lemons. Pour into glasses and set in a cool place. It is necessary to have the milk quite cold before adding the other ingredients, else it will curdle.

Beef Tea.—This is best made by dissolving a proper amount of a reliable brand of beef extract in a cupful of boiling water, seasoning with salt, celery salt, and a little pepper, and serving hot.

Beef Juice.—Broil quickly a thick piece of fresh beef devoid of fat and bone; put in a meat press and squeeze out the juice. Season and serve full strength or diluted with hot water.

Chicken Broth.—Skin and chop up a small chicken, or half a large fowl, and boil it, bones and all, with a blade of mace or sprig of parsley and a crust of bread, in a quart of water, for an hour—skimming it from time to time. Strain through a course colander.

Mutton Broth.—Lean loin of mutton, exclusive of bone, one pound; water three pints. Boil gently till very tender, adding a little salt and onion according to taste. Pour off the broth in a basin, and when it is cool skim off all the fat. It can be warmed up as wanted. If barley or rice is added, as is desirable during recovery from sickness, it should be boiled separately until quite soft, and put in when the broth is heated for use.

Outlet for Invalids.—One nice outlet from the loin or neck of mutton; water, two teacupfuls; celery salt, a sufficient quantity, or one very small stick of green celery. Remove all fat from the outlet and put in a stewpan with the other ingredients. When fresh celery is used it should be cut in thin slices before being added to the meat, and care must be taken *not to add too much*. Stew *very gently* for nearly two hours, adding salt and

pepper to taste, and from time to time skim off every particle of fat that may rise to the surface. If the water is allowed to boil fast the outlet will be hard.

Eggs as articles of diet are cheap and nutritious; moreover, they are quite easily digested, if *not damaged by cooking*. An egg is a rather complete food in itself—containing, as it does, everything required for the development of a perfect chick. An average egg weighs a thousand grains, and is more nourishing than an equal weight of beefsteak. For invalids, eggs should be soft-boiled, or dropped from the shell in boiling water and served with crackers or toast.

Cup Custard.—One egg, one cup of milk, sugar, nutmeg, and salt to taste. Beat egg thoroughly in a teacup, add the milk and flavoring, mix, and bake about twenty minutes in an oven moderately heated. May be served cold or warm, with or without jelly.

Drinks, properly prepared, are quite as important to the sick room as food. Especially during the summer season, and when suffering from febrile conditions, will the value and advantage of cooling refrigerant drinks be appreciated; while mucilaginous demulcent fluids will be found soothing to irritable states of the alimentary canal and pulmonary and urinary systems.

Imperial Drink.—Dissolve from two to three drams of cream of tartar in a quart of boiling water, add the juice of lemon and a little lemon peel, and sweeten with sugar. When cold it may be taken freely as a cooling drink and diuretic. A valuable drink in threatened sunstroke and passive congestion of the brain.

Lemonade.—Pare thinly the rind of a lemon and cut the lemon into slices. Put the peel and sliced lemon into a jug with an ounce of white sugar, and pour over them one pint of boiling water. Cover the jug closely and digest until cold. Strain or pour off the liquid. Citron may be used instead of lemon, and likewise furnishes a grateful and refreshing refrigerant beverage.

Milk Lemonade.—Sugar, one and a half pounds, dissolved in a quart of boiling water, together with half a pint of lemon juice and one and a half pints of milk. This makes a cooling, agreeable, nourishing beverage.

Linseed Tea.—Place in a jug one ounce of bruised linseed, two drams bruised licorice root, half ounce white sugar, and two tablespoonfuls of lemon juice, and pour over them one pint of boiling water. Cover lightly, and digest for three or four hours near a fire. Strain through linen before using. This makes a mucilaginous liquid possessing demulcent properties, and of special value in bronchial and urinary affections.

Barley Water with White of Egg.—Take a tablespoonful of coarse barley and wash well with cold water, rejecting the washings. Then boil for an hour or more with a pint and a half of clean water, in a covered vessel or saucepan. Add a pinch of salt, enough sugar to render palatable, and strain. To four or six ounces of barely water thus prepared add the white of one egg. The value of this preparation in gastro-intestinal inflammation and irritation is not easily overestimated. In the enterocolitis of very young infants its exclusive administration for thirty-six and forty-eight hours will often relieve when all other measures have failed.

When a patient cannot be raised from the bed without risk of exhaustion, a medicine tube or crockery feeder should be used, but the same appliance, or even one of the same appearance, should be used for administering both food and medicine. The patient's mouth should be kept clean and fresh, as should also all external surroundings.

The medical department of the University of Texas has some two hundred and twenty-five matriculates in this its fifth year of existence, and is one of the few high grade medical schools of the South that insists upon a three-year graded course.

The Faculty has recently had painted an excellent portrait of Dr. Thomas C. Thompson, which will be hung in the Library Building of the College. Dr. Thompson has been very active in perfecting the organization of the college, is a member of the Board of Regents of the University of Texas and chairman of the committee on the medical department. To him more than to any one else is due the present advanced stand taken by that college.

HERBERT SPENCER ON EVOLUTION.*

Mr. Darwin's doctrine of natural selection and the doctrine of organic evolution are, by most people, unhesitatingly supposed to be one and the same thing. Yet between there is a difference analogous to that between the theory of gravitation and the theory of the solar system; and just as the theory of the solar system, held up to the time of Newton, would have continued outstanding had Newton's generalization been disproved, so, were the theory of natural selection disproved, the theory of organic evolution would remain. Lord Salisbury, however, in common with the immense majority of men, assumes† that the hypothesis of organic evolution must stand or fall with its alleged causal agencies.

Absence of direct proof of natural selection is duly emphasized by Lord Salisbury. He says: "No man or succession of men have ever observed the whole process in any single case, and certainly no man has recorded the observation." Supposing the two hypotheses—special creation and evolution by natural selection—are to be tested by the directly observed facts assigned in their support, then, if the hypothesis of evolution by natural selection is to be rejected because there are no directly observed facts which prove it, the hypothesis of special creation must be rejected for the same reason. Nobody has seen a species evolved and nobody has seen a species created.

But now from the question of direct evidence let us pass to the question of indirect evidence. Recent discoveries, especially those which show by intermediate forms that the bird-type is derived from the reptile-type, and those which show that, beginning with the four-toed *Orohippus* of the Eocene strata, we ascend in later strata, through *Mesohippus*, *Miohippus*, *Protohippus*, and *Platohippus*, up to the modern horse, have given strong support to the hypothesis of evolution; support so strong that Professor Huxley, who had up to the time he saw

Professor Marsh's fossils made reservations in his acceptance of the hypothesis, thereafter accepted it without reserve. Not only do fossils furnish in this and other cases the lines of linear ascent to existing forms, but they simultaneously disclose a general fact of great significance—the fact that early types of creatures in any class display the commonest or most general traits of structure, and that later types of the same class are more specialized in this or that direction. The truths of classification, again, have a kindred meaning.

The lesson taught by the facts of distribution in time, is also taught by the facts of distribution in space. In various regions there are alliances between the present fauna and the past fauna found fossil: though different they are near akin. Once more there are the facts of embryology. In various ways these tell us with endless repetition the same story. If we accept the hypothesis of evolution, the strange transformations undergone by a developing embryo become intelligible, though otherwise unintelligible. Every superior animal commences as a nucleated cell, a form common to the smallest and simplest creatures, the *Protozoa*. In each great class of *Metazoa*, further development of each higher type is accompanied by a "recapitulation" of traits distinctive of lower types. Marvelous as is this repetition of traits belonging to lower types, rudely indicated, it is quite congruous with the hypothesis of evolution—implies a kind of transcendental heredity. On the other hand, the hypothesis of design furnishes no explanation, but presents an insurmountable difficulty. With which evidence may be joined the evidence furnished by rudimentary organs, which are full of meaning on the evolution hypothesis, but worse than meaningless in the special-creation hypothesis.

But these four great groups of facts, suggesting in different ways the same history, stand thus far without assigned cause. How come these progressive modifications to have taken place? and why are the modified forms connected

* *Nineteenth Century*, November. Condensed for *Public Opinion*.

† Inaugural Address to the British Association, 1894. See *Public Opinion*, volume xvii, page 554.

with one another in the ways shown alike by palæontology, by classification, by distribution, and by embryology? The reply is that we need only look around to see everywhere at work a general cause which, if it has been at work throughout all time, yields an explanation. Take any plant or animal and expose it to a new set of circumstances (circumstances not so unlike its previous ones as to prove fatal) and it begins to change; and the change is one which eventually adapts it to the new conditions. Here the argument requires us only to recognize the truth that in some way the organization is moulded to the new conditions.

Thus we have four great groups of observed facts (or five if we include those concerning rudimentary organs) all suggesting the same history, all converging to the same conclusion. On these mutually-verifying sets of evidences the hypothesis of evolution stands by itself, quite apart from any conclusions respecting its special causes. And now, having contemplated the observed facts which indirectly support the hypothesis of evolution, let us ask for the observed facts which indirectly support the alternative hypothesis. There are none. Neither in the air, nor on the earth, nor in the water, do we find anything implying special creation. Nay, indeed, not only do we see no facts favoring the supposition, but we see a world of facts conflicting with it. The idea of a special creation, when brought distinctly before us by alleged cases, is too absurd to be entertained.

Let us now consider whether, in the absence of observed facts proving the production of a species by natural selection, we have warrant for the theory of natural selection. Heredity, otherwise manifest, being clearly proved by the experience of breeders, survival of the fittest necessarily implies that those individuals which have structures best adapted to their environments, will, on the average, have better adapted posterity than the rest; and that so the fitness to the environment will be maintained. A further unavoidable corollary is that if the habitat changes in character, or if there occurs a migration to another habitat, the most unfitted will disappear in a greater proportion than

the least unfitted; and that from destruction of the most unfitted in successive generations, there will result a continually-diminished unfitness to the new habitat, until there is reached a fitness for it. These are inferences which it is impossible to escape.

The great length of time required for the production of species by the evolutionary process, is supposed by Lord Salisbury to furnish a reason for disbelief. In support of his argument he cites Lord Kelvin's conclusion that life cannot have existed on the earth more than a hundred million years. Suppressing criticism, let us accept in full the hundred million years, and see what comes of it. Lord Salisbury invites us to reflect on "the prodigious change" required to transform his hypothetical jelly-fish into a man. He appears never to have reflected upon "the prodigious change" which in a few months transforms the human ovum into an infant.

The nine months of human gestation, more exactly stated, is 280 days, that is 6,720 hours or 403,200 minutes. Thus, then the total change from the nucleated cell constituting the human ovum to the developed structure of the infant just born, is divisible into 403,200 changes each occupying a minute. No one of these changes is appreciable by the naked eye, or even by a micrometer. Turn now to the other member of the comparison. To compare the two sets of changes we divide 100,000,000 years by 403,200. What is the result? We get nearly 250 years as the interval available for an amount of change equal to that which the fœtus undergoes in a minute. Another way of presenting the facts yields results still more striking. We may fitly, contemplating the whole series, take a year as the equivalent for a generation. If so, it follows that to achieve the transformation of the *Protozoon* into Man, it requires only that in the space of 250 generations the change shall be as great as that which the human fœtus undergoes in a minute; or, otherwise stating the fact, it requires that each generation shall differ from the last by as much as the fœtus differs from itself after an interval of a fourth of a second.

One more misconception embodied in Lord Salisbury's address remains to be

noted—not a misconception peculiar to himself, but one which men at large entertain. Apparently Lord Salisbury thinks evolution is concerned only with animals and plants. It is difficult to believe that, well acquainted as he is with the science of the day, he really means that which his words imply. The cosmos as a whole and in all its parts has reached its present state either supernaturally or, naturally; and if naturally then not living things only but all other things have come naturally to be what they are. A doctrine which alleges evolution for the animate world and assumes creation of the inanimate world is absurd. Evolution, if alleged at all, must be alleged as coextensive with all existence—save that which is undergoing the reverse process of dissolution.

This is not the place in which to explain and illustrate this universal law of transformation and these universal causes of transformation. Here I am concerned merely to indicate their scope, and to say that the doctrine of evolution, rightly conceived, has for its subject-matter not the changes exhibited by the organic world only, but also the changes which went on during an enormous period before life began, and the changes which have gone on since life rose to its highest form, and Man, passing into the associated state, gave origin to the endlessly varied products of social life. It has for its subject-matter the entire cosmic process, from nebular condensation down to the development of picture records into written language, or the formation of local dialects.

How utterly different the popular conception of evolution is from evolution as rightly conceived will now be manifest. The prevailing belief is doubly erroneous—contains an error within an error. The theory of natural selection is wrongly supposed to be identical with the theory of organic evolution; and the theory of organic evolution is wrongly supposed to be identical with the theory of evolution at large. In current thought the entire transformation is included in one part of it, and that part of it is included in one of its factors. From his place of vantage Lord Salisbury might have done much to dissipate these delusions; but, unhappily, both his language and his arguments have tended to do the reverse.

Stains and Their Removal.

It is perhaps hardly necessary to say that stains should be treated as speedily as possible after their first appearance. When once dry they are more difficult to remove, requiring both time and perseverance. Paint should be instantly wiped off; grease on wood, stone or carpet should be congealed before it has time to penetrate, by throwing cold water over it. Tea, coffee, ink, wine, and fruit stains will disappear in a quarter of time if they can be attended to while wet. Spots on colored material must not be rubbed, but dabbed over and over again until they disappear. Rubbing roughens the surface and often leaves a whitened circle almost as unsightly as the original stain. The dabbing is best done by covering a finger with an old handkerchief frequently changed, and great care should be taken to confine the operation to the area of the stain itself, and not to extend the damage by damping and dabbing the surrounding material. In the treatment of stains, to know what you mean to do, and to do it quickly and neatly, is more than half the battle. We will take stains on white washing materials first.

For acids, tie up a bit of washing soda in the stained part, make a lather of soap and cold soft water, immerse the linen, and boil until the spot disappears.

For anilins, wet with acetic acid, apply diluted chloride of lime, and wash out carefully.

Apple and pear stains may be removed by soaking in paraffin for a few hours before washing.

Blood, if fresh, is removed by soaking for twelve hours, in cold water, then washing in tepid water. If the mark still remains, cover it with a paste made of cold water and starch, and expose to the sun for a day or two. Old stains require iodide of potassium diluted with four times its weight of water.

For coffee and chocolate, pour soft boiling water through the stains, and while wet hold in the fumes of burning sulphur.

Ink requires milk for its removal; the spot should be soaked and gently rubbed. A fresh stain will disappear quickly, but an old one may need soaking in milk for twelve hours.

Grass stains are removed by alcohol.

NEW VIEWS UPON THE PROPHYLAXIS AND TREATMENT OF
DIPHThERIA.*

S. SCHWARZ, M.D., CONSTANTINOPLE.

The doctrines upon the theoretical value and practical use of serum therapy in diphtheria, so enthusiastically received at the Budapest Congress, had already been subjected to investigation from many points of view. They also found ample discussion in two subsequent medical congresses, in all medico-scientific societies, and in a large number of literary reports. Up to the present time, however, all this controversy has not led to the conclusions so earnestly desired by all.

In the meantime the minds of physicians became more composed, the universal enthusiasm gradually subsided and gave place to more lively conviction, so that now—since these doctrines mark a significant advance in the treatment of diphtheria—we are no longer distant from the epoch in which this important question will be solved for the general weal. In order to hasten the advent of this period as much as possible, I deem it the duty of every physician to give publicity to whatever method of treatment with which favorable results have been obtained; for in this way alone can a simplified and easily applicable therapy in diphtheria be developed, and at the same time lead to a prophylaxis which will check the advance of this terrible malady.

It is far from my purpose to personally subject serumtherapy to any form of criticism, or to enter into a discussion of the passionate debates which, in great part, rested upon misunderstanding. I will confine myself to a short resumé of the present state of this method of therapy, and refer to a method of treatment given in my article "*Zur Therapie der Diphtheritis*" ("*Internationale klin. Rundschau*," No. 36, 1892), in order to suggest a combined method of treatment, which should reduce the mortality of diphtheria to a minimum.

Judging from the literature to date, it must be admitted that antitoxin has re-

duced the mortality to a considerable degree. Numerically, the percentage cannot be determined; it varies between 15 and 25, which, in comparison to the previous mortality of 62, is very gratifying. Statistical evidence that the mortality has even been reduced to 12 per cent. cannot be considered, for there can be no doubt that, in recent months, public excitement caused many mild cases to seek treatment in hospitals, and this contributed to a more favorable showing in the statistics. It is further settled that antitoxin exerts a destructive action upon the Loeffler bacillus only; on the other hand, it has no influence whatever upon the accompanying staphylococci and streptococci. If the injections are made upon the first or second day of the disease, there is some prospect of recovery. In mixed infection, the action is very problematical. The serum acts very slowly in favorable cases; the febrile decline, as well as the limitation and exfoliation of the membranes, does not begin until after the expiration of 48 hours. It has further been determined that children who, in consequence of the serum treatment, have survived the disease, again become affected with diphtheria a short time thereafter. It has also been observed that children, injected for purposes of immunization, have, nevertheless, developed diphtheria a few weeks subsequently. From these facts it is plain that the serum does not render the human body immune, or, at least, that the possibly originated immunity is of but a transitory nature. In many cases the injections are followed by cutaneous eruptions, which, however, do not exert a pernicious effect upon the general condition. The albuminuria is not benefited by the serum; indeed, in many instances, the latter is said to have produced violent nephritis.

Regarding my method of treatment, its application was begun upon the basis of theoretical principles, and from the

**Amer. Med.-Surg. Bul.*, Nov., 1895.

standpoint of the practicing physician. Years before Loeffler discovered the specific cause of diphtheria, I looked upon this disease as due to a micro-organism, because of its infectious nature. I therefore endeavored to find a medicament which would destroy these parasites in loco without working injury to the organism, even after long administration. At the same time I sought to administer the medicament to the child in a manner calculated not to increase the eo ipso weakened action of the heart.

Personal experience with application by means of swabbing, syringing, and irrigation led me to abandon these procedures. These can only be carried out on very docile or older children; in fully 80 per cent. of the children it is almost impossible to employ them, unless one possesses extraordinary skill, born of years of practice. The parents or nurses exhaust themselves and the sick child, and, as a rule, injure the palate, cheeks or tongue. These points of injury are shortly afterward found covered with diphtheritic membrane, and they form new foci of infection, which hasten the absorption of toxins and death. Aside from this very difficult method of treatment, I was also unable to find any liquid medicament which was capable of destroying the microbes within a few hours. Sublimate is the only certain remedy; but, unfortunately, it cannot be used if it is desired not to injure the organism. *Liquor ferri* is also of value, but it causes so much pain that, as even its advocates admit, such a method of therapy must be considered barbaric. Furthermore, the too frequent employment of swabbing, viz., every one-half to two hours, is a serious objection. When it is considered how depressed and weak the children are after a single swabbing, the necessity of avoiding the frequent production of this condition in the case of a child with a weak heart is at once apparent. I am convinced that no small number of the fatal cases of diphtheria in children are directly referable to exhaustion produced by swabbings. What vital energy is not consumed by the toxins is used up by the torture of the swabbings.

After I had convinced myself of the inappropriate and directly injurious effects of swabbings, I resorted to the use

of pulverized medicaments in the form of insufflations; and up to the present this method of treatment has acted most favorably, not only in my own cases, but also in those of many of my colleagues. By means of insufflations much can be attained: (1) The vital powers of the child are not taxed to any significant degree, for the insufflation lasts but a few seconds, and is only employed at intervals of four hours; (2) even though the powder is not applied directly to the infected locality, it mixes with the saliva, and, through the movements of chewing and swallowing, reaches the membranes, where it remains adherent for some time, is gradually dissolved, and, in fluid form, enters the deepest lacunæ of the tonsils, which it disinfects; (3) the whole oral cavity, where innumerable microbes reside, is likewise disinfected; (4) the manipulations are so simple that anyone can carry them out with ease.

There are those who object to the use of insufflation on the ground that a portion of the powder may enter the larynx and give rise to phenomena of suffocation; but the opponents seem to have forgotten that even insoluble powder (tannin) is blown directly into the larynx with beneficial results. For each insufflation I use a long paper tube, which is burned immediately after use, to avoid any further infection. The powder is placed in one end of the tube, and, after the tongue has been depressed by aid of a spoon, is deposited in the throat by blowing through the opposite end.

After I had successively tried the most varied antiseptic powders, I decided upon flowers of sulphur, which was of very great service to me, though not entirely satisfactory.

My own experience¹ with the non-injurious effects of the soziodol preparations, as well as the publication of Langgaard² on the bactericidal action of soziodol upon the pyogenic cocci, and those of Luebbert³ upon the staphylococcus aureus and the pyocyanus, and anthrax bacilli, led me to employ these preparations in diphtheria. From the very first I was most agreeably surprised to find my presuppositions confirmed.

As already stated, in the therapy of

¹Revue medico-pharmaceutique, 1889, No. 7: "Sur l'Action thérapeutique du Soziodole et ses Sels."

²Therapeutische Monatshefte, 1888, No. 9.

³Fortschritte der Medicin, 1889, Nos. 22 and 23.

diphtheria I directed my attention to local disinfection of the effected parts by prolonged action upon the latter of the anti-bacterial substance. This can only be accomplished by means of insufflation and the preservation of the patient's strength, which I sustain partly by the use of tonics, partly by merciful treatment. In children under two years I insufflate the little patients every four hours, for example: *Natrii soziodolici*, 3.0 gme.; *flor. sulph.*, 6.0; *saccharini*, 1.0.

In children from two to four years I use *natrii soziodolici* and *flor. sulph.*, equal parts, with a little *saccharin*; and in children over four years, *natrii soziodolici*, in fine powder, rubbed up with same *saccharin*. In addition, they receive every hour a tablespoonful of a chlorate-of-potash solution 1-1.5 to 18, in order to neutralize in the stomach portions of membranes which may have been swallowed; and at longer intervals tablespoonful doses of a decoction of *cinchona* with *cognac* or *malaga*. On the other hand, *bouillon*, containing the yolk of eggs, and milk with and without *cognac* must be frequently administered. In order to prevent the development of post-diphtheretic paralysis, I begin at the very outset of the treatment the administration of extract of *nux vomica*, thrice daily, in doses appropriate to the age of the child.

Since the publication (l. c.) of my method of treatment three years ago, many colleagues have had opportunity to convince themselves of its value, and the numerous reports made to me by letters correspond in every particular with my own experience.

Among other things, Dr. Boehm, of Ratibor, wrote, February 16, 1894, that he blessed the hour when my paper came to his notice. In four months he had treated, according to my directions, twenty-one children, from one to thirteen years of age, with insufflations of sodium soziodolate combined with flowers of sulphur. Of these he lost but one case—one to which he was called when death from suffocation was near at hand. He is convinced that sodium soziodolate is a most excellent remedy in the treatment of diphtheria. The following he considers established: (1) The application of this remedy is a rel-

atively agreeable one to the little patients, and is never frustrated by their resistance; (2) when applied at the proper time, the fever rapidly declines, the *fetor ex ore* disappears, the membranes become loosened and exfoliate within twenty-four to forty-eight hours, and the ulcerated surface, after exfoliation, is completely healed, etc.

Dr. Mordtmann, physician-in-chief of the German hospital of Constantinople, assures me that for a long time he delayed employing antitoxin in diphtheria, because, since he began to treat diphtheria with soziodol insufflations, it seemed to him to be superfluous. For scientific reasons in a few cases he used the serum, accompanied by local treatment with sodium soziodolate, and attributed the convalescence of the children more to the soziodole than to the serum. He placed at my disposal the histories of all his cases, which, however, I cannot publish for want of space.

It would lead me too far to refer to all the reports I have received, written in the same strain. This much is certain: that all of those colleagues who employed this method of treatment attained results similar to my own; that it is the only simple and practical one; and that in the reduction in mortality it exceeds by far all other methods of treatment. The total mortality, including the most severe and far advanced cases, as well as those living under bad hygienic conditions, never rose above 8 to 10 per cent. while in cases treated immediately after the appearance of the disease, it scarcely reached 2 to 3 per cent.

The course of the disease is as follows: After the first, sometimes after the second, insufflation, the temperature falls to 37 to 37.5°C., and even in the most sad cases it never goes above 38. The patients feel better and gladly take the nourishment and medicines offered them; their faces brighten, they play, and give the impression of convalescents. The *fetor ex ore* disappears entirely after 8 to 10 hours, and the membranes loosen and exfoliate within 24 to 48 hours, and leave healed ulcer surface behind. Complete cure is established after the expiration of 3 to 4 days. As a rule, I continue the insufflations for 8 to 10 days beyond this period.

As a precautionary measure, even

those children in whom the nose is not infected are insufflated. The glandular swellings are visibly reduced. If no laryngeal affections are present, these swellings are almost never observed; if such are present in a mild form, they subside. After recovery from the disease, paralytic phenomena occur only in those patients who manifested severe symptoms of intoxication when treatment was begun. I have never observed relapses, nor have such been reported to me by others. I have never been able to detect any unfavorable action of the treatment upon the kidneys; on the contrary, with the disappearance of the general symptoms,¹ whatever albumen may have been present likewise subsided. Reformation of the membranes never occurs. A pernicious action of the medicament upon the body is wholly out of the question. Even in the most severe toxic symptoms a pronounced improvement takes place, and if the body possesses sufficient powers of resistance the severest cases recover. If the patients come under treatment during the first days of the disease, toxic symptoms rarely develop.

The favorable results which I and others obtained with this method of treatment induced me to employ it as a prophylactic. For example, in families in which a child becomes affected with diphtheria, and isolation of the other children is not possible, I insufflate those exposed, with the above-mentioned powder mixture several times a day. I do not recall ever having seen any of the children thus protected come down with the disease. Likewise, the adults, with whom the children must come in contact, are directed to use, in addition to the usual hygienic precautions, a 2-per cent. solution of soziodole as a gargle several times daily.

Since the healthy mouth cavity is inhabited by various species of micro-organisms, such as streptococcus, staphylococcus, Loeffler's bacillus, etc., which under well-known conditions, may give rise to serious toxic symptoms I employ for prophylactic purposes a 2-per cent. solution of sodium soziodolate as a mouth-wash in adults, and, in children, troches of 0.3 gme. of sodium soziodolate several times a day. Whether diphtheria has become a rarity in these families because of the

hygienic regulations instituted, I will not discuss. This much, however, is settled: namely, that throat affections in general seldom occur in them. So much for my practical experiences.

Incited by my request (l. c.) to bacteriologists to test the bactericidal action of the soziodole preparations upon the Loeffler bacillus and the accompanying streptococci and staphylococci. Dr. Draer, of Königsberg, undertook this difficult task. I take advantage of this opportunity to express to him my warmest thanks for his efforts in this direction. His intelligently conducted experiments led to the following results, which I will give briefly, and refer the reader to the paper where further details may be found⁴.

Draer found that zinc and mercury soziodolates, even in 2-per cent. solution, destroy the Loeffler bacillus in the shortest interval, while sodium soziodolate used in powder form does this only after prolonged action. Since both the first-mentioned preparations exert a toxic action upon the body the treatment of diphtheria with sodium soziodolate is preferable, because it is absolutely harmless and readily soluble. Even though the experiments of a Luebbert (l. c.) indicate that dogs bear well the administration by the stomach of large doses (0.5 gme. daily) of mercury soziodolate, and my own experience in the treatment of syphilis has shown that persons stand the same preparation in doses of 0.1 gme. daily for weeks without untoward effects, the disease being at the same time visibly influenced; still, I would hesitate to advise the employment of this preparation in diphtheria, especially when it must be intrusted to the hands of the inexperienced.

The experiments of Langgaard, Luebbert, Spierig,⁵ and others sufficiently demonstrate the destructive action of the soziodol preparations upon the staphylococcus streptococcus, Loeffler's bacillus, etc., without however, giving any satisfactory explanation of the physi-

⁴From the Hygienic Institute of Königsberg, Prussia: "Ueber die Desinfectiionskraft der Soziodolsäure und verschiedener ihrer Salze gegenüber dem Loeffler'schen Diphtheriebacillus," in the Deutsch. med. Woch., Nos. 27 and 28, 1894.

⁵Zeitschrift für Hygiene und Infectiouskrankheiten, XIII, No. 1, 1893: "Der Desinfectionswerth der Soziodolpräparate nebst Bemerkungen über die Technik der Prüfungen der Antiseptica."

ological processes occurring in the human body during the employment of these salts. When the doctrines of immunity and the experiments instituted in this connection are closely considered, an explanation of this question is readily found. Pasteur taught us that when the attenuated cultures of a bacterial affection are injected into an animal which is susceptible to this disease, it is rendered immune to this disease. Then came Behring, who set up his theory of immunization: When a person survives an infectious disease, there are formed in his blood (blood-serum) antitoxins, which destroy the toxins of a new infection, whereby the person in question is made immune. The artificial production of the same process in the blood-serum of animals, and the immunization of the latter, were accomplished by Behring in various ways: (1) By injection of large quantities of attenuated cultures; (2) by injections of small quantities of very virulent cultures; (3) by addition of trichloride of iodine, or chloride of gold and soda, to the virulent bouillon cultures, and injection of these; (4) by first infecting the animal with diphtheria bacilli and, after the animal manifested severe symptoms of disease, injecting trichloride of iodine. In all of these experiments Behring obtained from those animals which had survived the disease a serum which conferred immunity upon other animals. Behring⁶ has further experimentally proved: When healthy animals, which are susceptible to the diphtheria bacillus, are treated with peroxide of hydrogen, and subsequently inoculated with diphtheria bacilli, they are rendered immune to the action of this bacillus. Now, if Behring succeeded in obtaining an immunizing serum by addition to virulent cultures, or in existing infection, by injection of a medicament which killed the bacillus, or if he was able to reduce the susceptibility to diphtheria bacilli by previous treatment with peroxide of hydrogen, it is plain that any other medicament which is capable of attenuating or destroying the bacilli—be it through absorption by the mucous membrane, or from the stomach—likewise produces in the blood-

serum antitoxins which must neutralize the toxins present in the body and thus effect a cure.

Since the antibacterial action of the soziodole preparations is experimentally and practically proved, I conceive the action of the same to be as follows: The bacilli brought in contact with the salt are partially weakened, partially destroyed, and in this state they enter the blood channels, where they produce antitoxins, which destroy the toxins subsequently introduced. In this manner the rapid subsidence of the fever and other toxic phenomena is readily explained. Furthermore, it is easy to understand why children who have survived diphtheria under this treatment, do not again become affected with diphtheria—they have for some time been rendered immune by the accumulation of antitoxins. The fact that children who occupy the same room as the patient, and have been treated with insufflations of sodium soziodolate as a prophylactic, do not take diphtheria, is as easily explained, because the soziodole salts exert an immunizing action upon the animal body wholly analogous to that of peroxide of hydrogen.

It would be of great practical value, from a prophylactic as well as a therapeutic point of view, if bacteriologists would institute the following experiments: (1) To immunize animals for a number of days with the various soziodole salts, by injections, by mouth, or by rectum, and then to infect with pure Loeffler bacilli, then with diphtheria bacilli and their products of metabolism; (2) infect with bacilli, and at the same time administer the different salts by mouth, etc.; (3) infect the animals and treat them at variable intervals thereafter with the soziodole salts; (4) test the blood-serum of these animals as to its immunizing power upon other animals. If such experiments succeed, a simple and almost certain method of therapy and prophylaxis will be established.

The publication of this paper has in no way been inspired by a desire to bring forward any preconceived opinions, or with a view of opposing the new method of treatment (antitoxin). In detailing my own experience and that of others with this method of treatment, my intention is simply to place, in the

⁶"Die Geschichte der Diphtherie mit besonderer Berücksichtigung der Immunitätslehre," by Prof. Dr. Behring; 1898.

hands of every colleague who lacks the necessary means of making a positive diagnosis of diphtheria, a method which when employed in either pure diphtheria or mixed infections, excels in effectiveness all previously employed medications. It is harmless, convenient, and applicable by all.

Let us consider the views and experiences of authorities. Behring says: "In the employment of antitoxin, the presence of the Loeffler bacillus must first be determined." Löffler states (Budapest Congress): "It is not infrequent for affections of the air-passages to occur which clinically simulate true diphtheria, but which are produced by other organisms—streptococci, staphylococci. They, like true diphtheria, may run a mild or a severe course. Only by bacteriological examination, can a differential diagnosis be made." According to the observations of Escherich, during an epidemic in Graz, the Loeffler bacillus was absent in one-third of all cases. Now, how shall a practicing

physician, who lacks the means of making a differential diagnosis, act in the presence of a case clinically diagnosed as diphtheria? The employment of serum alone in a case resembling diphtheria may end disastrously, because the serum acts only upon the Loeffler bacillus and leaves the activity of the streptococcus and staphylococcus unaffected. Besides, a diagnosis made without the aid of bacteriological methods may injure the serumtherapy and cause many to abandon it.

In my opinion, diphtheria is not a disease which can be treated by one-sided methods; i. e., by a specific. This view seems to have induced Saltmann to employ general and local treatment, in addition to the serum. Therefore, it is desirable that those physicians who have fresh serum and every scientific means at their command should employ antitoxin in combination with insufflations of sodium sozoiodolate—a method of treatment which can only contribute to the benefit of humanity.

LIBRARY TABLE.

DUNGLISON'S DICTIONARY OF MEDICAL SCIENCE, 21ST EDITION WITH APPENDIX. Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Surgery, Ophthalmology, Otolaryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence and Dentistry, etc., etc. By Robley Dunglison, M. D., LL. D. Late Professor of Institutes of Medicine in the Jefferson Medical College of Philadelphia. Edited by Richard J. Dunglison, A. M., M. D. New (21st) edition, thoroughly revised, greatly enlarged and improved, with the Pronunciation, Accentuation, and Derivation of the terms. In one magnificent imperial octavo volume of 1225 pages. Cloth, \$7.00; leather, \$8.00. Thumb-letter index for quick use, 75 cents extra. Lea Brothers & Co., Publishers, Philadelphia, 1895.

Dunglison's Dictionary, for more than sixty years, has been a medical standard for the English-speaking race. It has passed through twenty-one editions, the most extensive revision being that of two years ago when the book was remodeled and forty-four thousand words added. Since this last revision, progress has enriched the terminology of the science with many new words and extensions

of former meanings, and the appearance of the Appendix shows that both editor and publishers appreciate the necessity of keeping the great work always in the van.

Those concerned with medical science or cognate branches will find Dunglison a satisfactory authoritative guide to the derivation, definition and pronunciation of medical terms. It abounds in tables of value, such as Dosage, Antidotes for Poisoning etc., etc., and its articles on the various diseases deal with their clinical features and treatment. Its price is moderate in comparison with its intrinsic value, and no increase is made on account of the Appendix.

SAUNDERS' AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. Edited by George M. Gould, A. M., M. D., assisted by eminent American physicians and teachers. Ready January, 1896. W. B. Saunders, Publisher, 925 Walnut Street, Philadelphia.

Notwithstanding the rapid multiplication of medical and surgical works, still these publications fail to meet fully the requirements of the general physician, inasmuch as he feels the need of something more than mere text-books of well-

known principles of medical science. Mr. Saunders has long been impressed with this fact, which is confirmed by the unanimity of expression from the profession at large, as indicated by advices from his large corps of canvassers.

This deficiency would best be met by current journalistic literature, but most practitioners have scant access to this almost unlimited source of information, and the busy practitioner has but little time to search out in periodicals the many interesting cases, whose study would doubtless be of inestimable value in his practice. Therefore, a work which places before the physician in convenient form an epitomization of this literature by persons competent to pronounce upon the value of a discovery or of a method of treatment cannot but command the highest appreciation. It is this critical and judicial function that will be assumed by the editorial staff of the "American Year-Book of Medicine and Surgery."

It is the special purpose of the editor, whose experience peculiarly qualifies him for the preparation of this work, not only to review the contributions to American journals, but also the methods and discoveries reported in the leading medical journals of Europe, thus enlarging the survey and making the work characteristically international. These reviews will not simply be a series of undigested abstracts indiscriminately run together, nor will they be retrospective of "news" one or two years old, but the treatment presented will be synthetic and dogmatic, and will include only what is new. Moreover, through expert condensation by experienced writers these discussions will be comprised in a single volume.

The work will be replete with original and selected illustrations skilfully reproduced for the most part, in Mr. Saunders' own studios established for the purpose, thus insuring accuracy in delineation, affording efficient aids to a right comprehension of the text, and adding to the attractiveness of the volume.

"KEIL'S MEDICAL, PHARMACEUTICAL AND DENTAL DIRECTORY."

George Keil, Editor, Philadelphia, announces the early publication (fourth edition) of "Keil's Medical, Pharmaceutical and Dental Register-Directory and Intelligencer," for Pennsylvania, and New York, New Jersey, Maryland, Delaware and District of Columbia. Its list of National colleges, State hospitals, homes, dispensaries, societies, and post-office addresses of physicians, druggists and dentists, school of graduation and year, all the latest laws in these States, will be complete to date of issue as a personal canvas will be made for data. It is the only Directory published for above-named States, registering graduates of all

schools, physicians, druggists and dentists, and imparting all information needed by the professions mentioned in their daily practice. No effort will be spared to make the Directory complete, and the information accurate and reliable in the minutest detail belonging to the domain of medical, pharmaceutical and dental professions. An experience of thirty years is a sufficient guarantee that all subjects will be properly treated in "Keil's Directory." The names in large cities, in addition to being in alphabetical order will be numerically arranged by streets, also an alphabetical list of names of the whole Directory, giving the page of each; these features will no doubt be appreciated.

THE PHYSICIANS VISITING LIST. (Lindsay & Blackiston's). Published annually for 45 years. Special improved edition for 1896. Bound in strong leather covers, with pocket and pencil. Philadelphia, P. Blakiston, Son & Co., 1012 Walnut Street. 1895.

For 25 patients weekly, with special memorandum page, \$1.00; 50, \$1.25; 50, two vols., \$2.00; 75, two vols., \$2.00; 100, two vols., \$2.25. Perpetual edition, without dates. No. 1. Containing space for over 1300 names, with blank page opposite each Visiting List page. Bound in red leather cover, with pocket and pencil, \$1.25. No. 2. Same as No. 1. Containing space for 2600 names, with blank page opposite, \$1.50. Monthly Edition, without dates. No. 1. Bound, seal leather, without flap or pencil, gilt edges, \$.75; No. 2. Bound, seal leather, with tucks, pencil, etc., gilt edges, \$1.00.

This well known Visiting List presents several improvements in the new Edition for 1896.

More space has been allowed for writing the names and to the "Memoranda Page;" a column has been added for the "Amount" of the weekly visits and a column for the "Ledger Page."

To do this without increasing the bulk or price, the reading matter and memoranda pages have been rearranged and simplified.

The Lists for 75 patients and 100 patients will also have special memoranda page as above, and hereafter will come in two volumes only, dated January to June, and July to December. While this makes a book better suited to the pocket, the chief advantage is that it does away with the risk of losing the accounts of a whole year should the book be mislaid.

The publishers announce that before making these changes they have personally consulted a number of physicians who have used the book for many years, and have taken into consideration many suggestions made in letters from all parts of the country.

No Visiting List has been used to a greater ex-

tent or for so long a time as this. None is better suited to the work of the general physician, in keeping easily and systematically his business accounts and memoranda.

THE MEDICAL NEWS VISITING LIST for 1896. Weekly (dated, for thirty patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60 patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Lea Brothers & Co., Philadelphia. 1895.

The Medical News Visiting List for 189 is thoroughly revised and up to date in every respect. The text portion contains data useful for the physician and surgeon including an alphabetical Table of Diseases, the most approved remedies, and a Table of Doses. It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers, and the Ligation of Arteries. The classified blanks are arranged to hold records of all kinds of professional work, with memoranda and accounts. Care has been bestowed upon the mechanical execution of the book. In quality of paper and in strength and finish of binding nothing seems wanting. When desired, a Thumb-letter Index is furnished, which will save its small cost (25 cents) in the economy of time effected during a year. The Visiting List adapts itself to any system of keeping professional accounts.

THE ARCHIVES OF PEDIATRICS will commence its thirteenth year with the January Number under the business management of E. B. Treat, Publisher, of New York. The "Archives" has been for twelve years the only journal in the English language devoted exclusively to "Diseases of Children," and has always maintained a high standard of excellence.

The new management propose several important changes in its make-up; increasing the text fifteen per cent. and enlarging its scope in every way. This will give room for the fuller contributions and additional collaborators who have been secured for the various departments, all of which give promise of a more successful era than has been known even in the already brilliant career of the journal.

The editorial management will be in the hands of Floyd M. Crandall, M. D., Adjunct Professor of Pediatrics, New York Polyclinic, and Chairman of Section on Pediatrics, New York Academy of Medicine.

The same publisher has in press for early publication the 1896 International Medical Annual, being the fourteenth yearly issue of this eminently

useful work. Since the first issue of this one volume reference work, each year has witnessed marked improvements; and the prospectus of the forthcoming volume gives promise that it will surpass any of its predecessors. It will be the conjoint authorship of forty distinguished specialists, selected from the most eminent physicians and surgeons of America, England and the Continent. It will contain reports of the progress of medical science at home and abroad, together with a large number of original articles and reviews on subjects with which the several authors are especially associated. In short, the design of the book is, while not neglecting the specialist, to bring the general practitioner into direct communication with those who are advancing the science of medicine, so he may be furnished with all that is worthy of preservation, as reliable aids in his daily work. Illustrations in black and colors will be consistently used wherever helpful in elucidating the text. Altogether it makes a most useful, if not absolutely indispensable, investment for the medical practitioner. The price will remain the same as previous issues, \$2.75.

PEDIATRICS. Devoted to the diseases of children. Dillon Brown, M. D., New York, owner; Geo. A. Carpenter, M. D., London, editor. Editorial staff, Medicine: A. Jacobi M. D., New York; F. Forchheimer, M. D., Cincinnati. Surgery: H. R. Wharton, M. D., Philadelphia; F. S. Eve, F. R. C. S. Eng., London. Orthopedics: H. Ling Taylor, M. D., New York; F. R. Fischer, F. R. C. S. Eng., London. Gastro-enteric Disease: M. Manges, M. D., New York; J. Boas, M. D., Berlin. Laryngology, Wm. C. Glasgow, M. D., St. Louis; Mark Hovell, F. R. C. S. Ed., London. Therapeutics and Materia Medica: H. H. Rushby, M. D., New York; Dawson Williams, M. D., London. Teratology: Egbert H. Grandin, M. D., New York. Dermatology, James Nevins Hyde, M. D., Chicago; Leslie Phillips, M. D., Birmingham. Neurology, Joseph Collins, M. D., New York; Wm. R. Gowers, M. D. London. Ophthalmology, Myles Standish, M. D., Boston; Wm. Arthur Bralley, M. D., London. This is a new publication which, judged from its initial number, promises well.

THE AMERICAN JOURNAL OF SURGERY AND GYNECOLOGY has been removed to St. Louis, from which place the December number (Vol. VIII, No. 1) is just issued. Dr. Emory Lanphear, Professor of Surgery in the Woman's Medical College has been appointed editor-in-chief.

LITTELL'S LIVING AGE for 1896. The announcement of a reduction in the price of this

famous eclectic from eight dollars to six dollars a year will prove of more than usual interest to lovers of choice literature. Founded in 1844, it will soon enter its fifty-third year of a continuous and successful career seldom equaled.

This standard weekly is the oldest, as it is the best, concentration of choice periodical literature printed in this country. Those who desire a thorough compendium of all that is admirable and noteworthy in the literary world will be spared the trouble of wading through the sea of reviews and magazines published abroad; for they will find the essence of all compacted and concentrated here.

To those whose means are limited it must meet with especial favor, for it offers them what could not otherwise be obtained except by a large outlay. Intelligent readers who want to save time and money will find it invaluable.

The prospectus, printed in another column should be examined by all in selecting their periodicals for the new year. For the amount and quality of reading furnished, the new price makes *The Living Age* the cheapest as well as the best literary weekly in existence. Reduced clubbing rates with other periodicals offer still greater inducements, and to new subscribers remitting now for the year 1896 the intervening numbers of 1895 will be sent gratis. Littell & Co., Boston, are the publishers.

The subject of this month's character sketch in the *Review of Reviews* is Mr. Herbert Spencer. The sketch was written by an intimate friend whose identity is not disclosed. It is the most complete record of the great philosopher's life and achievements that has yet appeared. The writer tells us that "Social Statics" could not find a publisher in 1850, so that Mr. Spencer was obliged to print it at his own cost and sell it on commission. It took fourteen years to dispose of the edition of 750 copies. "Principles of Psychology" had a like experience, while Mr. Spencer was kept out of pocket for the capital sunk in these two ventures. It was the same with his other philosophical works at first and in the course of fifteen years Mr. Spencer lost more than £1,200. It was not till twenty-four years after he began to publish that he was fully abreast of his losses, or, in other words, just where he had started financially. It is some consolation to know that in recent years Mr. Spencer's income has been fairly satisfactory.

Cosmopolitan.—Two very important facts in connection with the new era of magazines are illustrated in the December *Cosmopolitan*. Its fiction is by Stevenson, the last story written be-

fore his death, "Ouida," Sarah Grand, Zangwill, and the beginning of James Lane Allen's new Kentucky realistic story, "Butterflies." Probably no stronger array of fiction has ever been presented in any magazine—money could not buy better. Nor has any magazine ever had a larger number of really distinguished artists engaged upon the illustration of a single number. The reader might be puzzled to know how such a number can be made at the price of ten cents. But the magazine itself affords the solution. It contains 139 pages of advertising, which, as the publishers announce, is from \$4,000 to \$8,000 more net cash advertising than was ever before printed in any magazine, of any kind, and in any country. It breaks the world's record in the publishing business. Moreover, the cost of the artists and authors who appear in this number is divided amongst 400,000 copies, bringing the cost per copy proportionately low. *The Cosmopolitan* thinks that the ten cent magazine, bringing, as it does, the best in art and literature into all classes, is an educational movement second in importance only to that of the public schools.

Harpers Magazine for 1896.—A New Novel, by William Black will begin in the forthcoming December Number. The title of the story, *Briseis*, is taken from its heroine, a Greek maiden, first introduced to the reader among the hills of Aberdeenshire. It is a tale which has long occupied the thought of the novelist, and into which he has put some of his best work. It will be illustrated from drawings made in Scotland and London by Mr. W. T. Smedley.

A New Novel by George Du Maurier entitled *The Martian*, will be begun during the year, illustrated by the author. A new phase of the writer's artistic life will be presented, drawn from his early days at Antwerp; but again the lights and shadows of Paris and London life will engage the reader's interest.

The greatest piece of fiction which has appeared during the current year is the *Personal Recollections of Joan of Arc*, presented in the guise of a narrative by her page Louis De Conte. In its web the facts and main situations are historical, but the texture woven about this has been supplied by the author's fertile imagination. Thus far the story has been of the Maid's wonderful victories. The other side—her failure and martyrdom—remains to be told in future numbers of the Magazine. It is here that the author draws upon his deepest resources of humor and pathos. As a whole, the story will

stand as the only one adequate to the great argument on which rests what has been not inappropriately called the "New Cult of La Pucelle."

A novelette by Mark Twain under the title *Tom Sawyer, Detective*, will appear after the conclusion of Mr. Black's novel. This will be followed by a humorous novelette, *Two Mormons of Muddlety*, by Mr. Langdon Elwyn Mitchell, the scene of which is laid in West Virginia. Mark Twain's story will be illustrated by Mr. A. B. Frost.

Arrangements have been made for short stories of exceptional quality. Several will be contributed by Octave Thanet. *Evelina's Garden*, by Miss Mary E. Wilkins, a story of considerable length, will be given in a single number, illustrated. Julian Ralph's *Tales of Chinese Life*, the result of a special trip to China for a personal study of the types of character presented, will be continued, with vivid pictorial illustrations from drawings by Mr. C. D. Weldon. Some fresh *Sketches of New York Society*, of which one is published in the December Number, will be contributed by Mr. Brander Matthews, with illustrations by Mr. W. T. Smedley. Mr. Owen Wister will resume the delightful *Stories of Western Life*, which first won for him his reputation in this field, introducing old and familiar characters like Lin McLean and the Virginian.

The notable feature of American History in the magazine literature of the year will be a series of *Papers on George Washington*, by Professor Woodrow Wilson, to begin in the January Number, with illustrations by Mr. Howard Pyle. Professor Wilson will in this series present a new interpretation of that period which was at once the fruition of the English colonial culture of America and the beginning of a new nation.

Mr. Poultney Bigelow's *Struggle for German Liberty*, illustrated by Mr. R. Caton Woodville, will be continued through the winter. It is the first popular interpretation ever given of the rehabilitation of Germany through the uprising of the German people against the Napoleonic invasion, and in despite of their own weak and vacillating sovereign.

Two articles treating the Indian campaigns during President Washington's administration—*St. Clair's Defeat* and *Mad Anthony Wayne's Victory*—graphically illustrated, will be contributed by Mr. Theodore Roosevelt.

Contributions of historical and biographical interest will be Mr. George W. Smalley's *Personal Recollections*; papers on *Oddities and Celebrities of the British Parliament*, by Thomas Power O'Connor, M.P.; more of Mr. Howells's *Literary Reminiscences*, illustrated; three articles by Mr. Laurence Hutton on *Literary Landmarks of Italy*, illustrated; and a paper on *Menzel*, the great German painter, by Dr. Charles Waldstein, illustrated by the artist's own work, and in great part by pictures not hitherto engraved.

Dr. Andrew Wilson, of Edinburgh, will contribute papers on recent science in connection with health and disease. The first of these, entitled *The Battle of the Cells*, will appear in an early Number.

The Magazine will present, in the "Editor's Study," the bright and pointed comments of Mr. Charles Dudley Warner on current, social and other timely topics. In addition to this permanent feature the Magazine will have from time to time, as occasion demands, special articles on critical questions of the day, from writers of authority and experience.

Among the features of the Magazine during the coming year will be a series of articles by Mr. Caspar W. Whitney, describing his extraordinary trip on snow-shoes and with dog-sledge trains into the unexplored Barren Grounds of British America.

Mr. Whitney is the first white man who has penetrated these grounds in the winter time. The story of his life there, with the thermometer ranging between 50° and 70° below zero, of the starvation, the difficulties of travel in the fearful storms and the excitement of musk-ox hunting, renders the series of articles which begins in the December Number quite unparalleled.

Dr. Whitney's story will have the added interest of being illustrated from photographs taken by himself. Some of them will be interpreted in drawings by Frederic Remington, and others will be reproduced direct.

Dr. Howard Pyle will contribute two articles describing a trip on a canal-boat up the Hudson River and by the Champlain Canal to Lake Champlain. The trip was undertaken expressly for *Harper's Magazine*, and its picturesque features have furnished subjects for a series of very striking and beautiful drawings by the author to accompany his text.

Scribner's for Christmas.—Frank R. Stockton has a Christmas love story, which bears a characteristic title,—*The Staying Power of Sir Rohan*. Its illustrations are quaint and exactly suitable.

A thrilling detective story by C. E. Carryll, entitled *The River Syndicate*, perhaps equalling Sherlock Holmes' best work. Illustrated.

Joel Chandler Harris' characteristic tale of a faithful slave—*The Colonel's Nigger-Dog*.

Other Christmas stories are *A White Blot*, by Henry Van Dyke, a poetic and imaginative tale of a picture (illustrated); *Heroism of Landers*, by A. S. Pier, (illustrated); and *Hopper's Old Man*, by R. C. V. Meyers.

Sentimental Tommy by J. M. Barrie. Those who have read (and who has not?) *The Little Minister* and *A Window in Thrums*, can anticipate what Mr. Barrie's *Sentimental Tommy* will be.

It is to be the chief serial in *Scribner's* for 1896, beginning in the January Number.

Two years for \$4.50. *Scribner's Magazine* costs \$3 00 a year, but new subscribers can have all the numbers for 1895 and a year's subscription for 1896 for \$4.50.

Scribner's Magazine is going to be better next year than ever. It is going to have new features. Its publishers are not satisfied with past successes. It purposes to more thoroughly deserve the confidence of the reading public.

The History Serial—*Last Quarter Century in the United States*—will be continued. Just now it is approaching a period of absorbing interest to the present generation—the first administration of President Cleveland.

Scribner's Magazine ought to get careful consideration as a Christmas gift. The \$4.50 offer ought to get double consideration. Charles Scribner's Sons, 153 Fifth Ave., New York.

CURRENT LITERATURE REVIEWED.

IN CHARGE OF SAMUEL M. WILSON, M. D.

Report of Ten Cases of Anterior Urethritis Treated in the Wards of the City Hospital by the Author's Method.¹

Some years ago my attention was called to the rapid cure of cases of gonorrhoeal ophthalmia in the city hospital by the constant application of ice-cloths, washing out the eye with a saturated solution of boric acid as often as necessary, and the instillation, once a day, of a two-per-cent solution of nitrate of silver, and immediately washing it away with saturated solution of boric acid. Accordingly, some five years ago, I resolved to attempt to discover the best method of applying the treatment of gonorrhoeal ophthalmia to gonorrhoeal urethritis.

Some Italian laborers with urethritis were treated closely after the methods employed for ophthalmia, with the exception of the ice-cloths. This consisted in injecting into the urethra, once daily, by means of a hand syringe, about two drachms of a ten-grain to the ounce solution of nitrate of silver, allowing it to escape almost immediately, and then injecting a saturated solution of boric acid. This solution of boric acid was also to be used at home after each act of micturition, the urethra being first washed out with warm water. This method worked well in some cases, but seemed too irritating in others. I therefore began using a solution of one grain to the ounce, and, this being of little service when used once daily, increased the strength by one grain daily, still using the boric acid as before. By this one grain progression, the strength of the solution could in some cases be increased to fifteen grains to the ounce without discomfort and with a beneficial result. Experience taught me, however,

not to increase the strength beyond ten grains to the ounce. Although this method seemed to shorten the duration of attacks of urethritis, the results were less brilliant than I had hoped for. I substituted the boric acid by sulphate of zinc with better results, and finally used a modification of the injection of Ultzman: sulphate of zinc, alum and carbolic acid, of each one grain; glycerine, one drachm, and distilled water one ounce. The cases treated in this way were always those of anterior urethritis, and if posterior urethritis occurred during the treatment I immediately changed it for some other.

A Protracted Case of Typhoid Fever: Some Features of Treatment.²

The history of this case is of interest chiefly because of the long duration of the illness, and because other measures had to be employed in place of cold baths. From the experience I have had I am convinced that if we could have given this patient cold baths the duration of the disease would have been shortened and the dangers to life, which were constantly present, averted. The patient's temperature did not become normal until seventy-three days after the beginning of the disease. I am aware that many cases are recorded which persisted for a longer period.

Prostration was pronounced from the first and was indicated by a weak pulse, by frequent syncope attacks, by persistent coldness of the extremities, by the ready production of shock by the external application of cold, or the use of drugs to reduce temperature. The prostration and the anemia were added to by the occurrence

¹Ramon Gutieras, M. D., *Therapeutic Gazette*, November 15, 1895.

²J. W. Musser, M. D., *University Medical Magazine*, November, 1895.

of a moderate hemorrhage from the bowels on the twenty-sixth day of the disease, and again on the following day. For a considerable period there was obstinate vomiting, requiring food and everything except champagne to be withheld from the twentieth to the twenty-sixth day. The bowels were constipated throughout the course of the disease, and an enema had to be given every second day. The specific eruption, enlarged and palpable spleen, and the hemorrhage rendered the diagnosis final.

Milk was given for a time in the quantities usually advised, but the amount had to be reduced; then it was rejected and cream substituted. Animal broths were refused. When the vomiting became pronounced the patient was fed by enema, but the hemorrhages forbade this for a time. The stimulant most relied on and which proved the most beneficial was coffee. At first two tablespoonfuls could be taken hot and without cream or sugar, every two, three or four hours. Later larger amounts were given at longer intervals. Both champagne and whiskey were given at different periods, but during the period of greatest gastric disturbance champagne was the most acceptable. I particularly wish to refer to coffee, and urge its more frequent use in acute diseases. I am quite sure that it contributed to saving the life of this patient, and it appeared to have a good effect in preventing vomiting.

As cold applications caused extreme depression, I resorted to the use of inunctions of oil in order to reduce the temperature.

It had been my custom to use inunctions of olive oil in cases of protracted fever. Until superseded by baths, this use of the oil became a routine method of treatment in the medical wards of the hospital. After the inunctions the temperature would fall $\frac{1}{2}^{\circ}$ or $\frac{3}{4}^{\circ}$ F., or perhaps a full degree, but notwithstanding the slight difference, the patients appeared more comfortable. They did not suffer apparently from the distressing effects of the heat, and would almost always fall into a sleep. The oil mitigated the effects of the fever, the inunctions allayed the perturbation, and I am quite sure contributed to the nutrition, or at least in some manner prevented the extreme waste and prostration that occur in protracted pyrexia.

When admitted the patient had only 3,500,000 red blood corpuscles per centimeter and the hemorrhages reduced this to 1,500,000. The pulse became more frequent, the respiration more rapid, breathlessness and fainting occurred frequently and the patient's extremities were cold and bloodless, and after exertion bluish. Inhalations of oxygen were given every hour during the periods of greatest depression, and later at intervals of every three or four hours. The good effects were pronounced.

Digitalis had to be abandoned on account of the irritable stomach, strychnia was of benefit but even small doses caused stiffness of the jaw. Cocaine in quarter-grain doses and carbolic acid in quarter-minim doses were given to allay vomiting and aromatic spirits of ammonia almost *ad libitum*. An idiosyncrasy against opium restricted its use to small doses, but given as small doses of

deodorized tincture with tincture of cannabis indica it relieved restlessness. The patient was completely restored to health, but was unable to resume her occupation until after a long period of convalescence.

Intra-Uterine Rupture of the Anterior Abdominal Wall With Eventration In a Newly Born Child³

Paul describes the case of a woman who, two days previous to labor, slipped while walking and struck her abdomen against the sharp edge of a stone step. Although the mother showed no evidence of injury, the fetal movements ceased. At birth the still-born child (congenitally syphilitic) was found to present a rupture of the anterior abdominal wall of a penetrating character, evidently the result of the maternal injury. Such a case becomes extremely important from a medico-legal standpoint. In spite of an exhaustive research through recent literature I have failed to find any other cases of this nature. Therefore I need not apologize for reporting the following:

Mrs. H., a multipara has always given birth to children without special difficulty. The present pregnancy has been marked by great pain throughout its course, but she can recollect no falls nor injuries. On July 27th labor pains started, and before the midwife could be sent for, the child was born and struck the floor with some force. Some of the neighbors were instantly on the spot and found the child alive, but the intestines protruding through an abdominal rent. During the next few hours the gut was said to have become swollen. I was sent for and arrived several hours after the birth. I found a well nourished child with the evidences of marked vitality. A large mass of intestine protruded from a small abdominal opening and lay between the child's legs on a pillow. On closer examination I found the umbilical opening entirely closed and containing, as usual, the stump of the umbilical cord. About half an inch to the right, however, the intestine escaped through an opening not much larger than a silver quarter. This opening was somewhat ragged in character and along the right margin presented distinct adhesions to the gut. The left margin was free and permitted the withdrawal of more gut and the insertion of a finger into the peritoneal cavity. On raising the mass the genitals and anus were found absent. A space about the size of a half dollar and covered by mucous membrane extended from the pubes to the tip of the coccyx. To either side of this cloaca, which represented the extrophied bladder were small projections representing the ununited halves of the clitoris. The space was entirely distinct from the opening through which the bowel escaped.

The child lived twenty-five hours drinking sweetened water from a spoon, and apparently not suffering much. An autopsy was not permitted. I believe the eventration was intra-uterine because of the presence of distinct adhesions to one side of the gut and because there was considerable protrusion when the child was picked up.

³A. Brothers, B. S. M. D., *New York Medical Journal*, Dec. 7, 1895.

PERISCOPE.

IN CHARGE OF WM. E. PARKE, A.M., M.D.

MEDICINE.

Cure for Dandruff.

Suffering much inconvenience from dandruff, and having resorted to many advertised nostrums and other means for relief, among which were various alcoholic solutions of castor oil, and washing the scalp with solutions of borax and carbonate of potassa—which latter, although effectual for the relief from the dandruff, seemed to impair the vitality of the hair and cause it to become very sensibly thinner,—I was finally induced to try a preparation of an ounce of the flowers of sulphur in a quart of water, as follows, with the happiest results: The sulphur was repeatedly agitated in the water at intervals for a few hours, and the clear liquid then poured off; with this the head was saturated every morning. In a few weeks every trace of dandruff disappeared, and the hair became soft and glossy. After discontinuing the treatment for eighteen months there is no return of the disease—*Louisville Medical Monthly*.

GYNECOLOGY.

The Preservation of the Perineum: A New Method.

Dr. M'Cartie contributes a long article on this subject to the *New York Medical Journal*, May, 1895. After explaining and condemning the old methods of "supporting the perineum," Dr. M'Cartie proceeds to describe the various methods advocated in the text-books of pushing forward the head under the pubic arch—such as pressure applied on the head just in front of the sacro-sciatic ligaments, or by pressing it forward with a thumb or fingers in the rectum, or just in front of the coccyx. Along with these methods, the various authors advocate pressure on the head itself to retard the passage when this occurs too suddenly or spasmodically. Other authors suggest hooking forward the perineum during a pain to remove the strain from the thinned border and to promote the elasticity of the tissues.

The various methods described deal very little with the position of the head in its passage through the vulva; in fact, the authors all assert the head should be helped through the vulva by means of extension. This idea is evidently adopted on account of the curve at the lower end of the genital canal. The curve of the canal is somewhat forward, but if the perineum and soft parts were removed, the axis of the canal from above downwards would look somewhat backwards. The curve in the coccygeal bones adds to the idea of a forward curve, but these parts are nearly straight when the pressure of the head dilates them. The head of the child is pressed directly downward on the perineum, the resistance of which, being greatest behind, pushes the

occiput forward, so that when the head is freed from the outlet the elastic perineum, still acting on the frontal region, presses the occiput towards the abdomen of the mother. But it does not follow that this mode of extension of the head is in progress all the time before the head is born.

On the other hand, flexion is naturally maintained, the elasticity of the perineum is counteracted by the outer rigid bony parts of the genital canal while the head is descending. When the forehead meets the perineal floor extreme flexion occurs, thereby giving the occiput the less chance of slipping out and passing under the pubic arch. Consequently we see the occiput bone long before the forehead. When, therefore, the occiput is born, the pressure of the elastic perineum from behind pushes the base of the occipital bone under the pubic arch, and thereby some extension is caused. According to the usual rules the accoucheur's duty is now to assist extension. Dr. M'Cartie, however strongly advocates the opposite of this. That is, when the resistance of the bony parts is removed by descent, the accoucheur should substitute a force for the natural one, to counteract the elasticity of the perineum and maintain flexion. This may be done simply and easily as follows: With the patient in the ordinary lateral position, the accoucheur places the finger-tips of the right hand on the occiput, as soon as it appears, with the thumb on the bony portion of the parietal bone; pulling towards him he is easily able to secure the required degree of flexion. Dr. M'Cartie argues that by so doing the sub-occipito-bregmatic diameter of $3\frac{1}{4}$ inches comes into the outlet, while, if extension be permitted, the occipito-frontal diameter of $4\frac{1}{2}$ inches is concerned, and in this latter attitude the head forms a round hard mass, unlike the conical plug of the well-flexed head. He maintains that the strongest pains may be controlled by grasping the head as dictated, so that the head may be delayed till the perineum has sufficiently relaxed. Further, he says, if any extension takes place, the uterus acting directly from the breech to the head, forces the vertex against the lowest and thinnest part of the perineum; but where flexion is maintained, the uterine force is directed through the forehead against the sloping wall of the perineum. By adopting this method, and by delaying the delivery—even returning the whole head into the vagina between the pains—Dr. M'Cartie considers that he now finds rupture of the perineum a rare event.

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